

**WIN A
£2000
LASER
PRINTER
& £500
SOFTWARE**

COMPUTER EXPRESS

FIRST NEWS • FIRST REVIEWS • BEST BUYS • YOUR WEEKLY GUIDE

THIS WEEK

AMIGA

When, where and why will you soon be able to hire a CDTV for only £30 a month?

ATARI

Where can you buy a ST portable with PC and Mac emulators built-in?

ARCHIMEDES

Now you can buy an A3000, TV modulator and £250 of software for only £650

PC

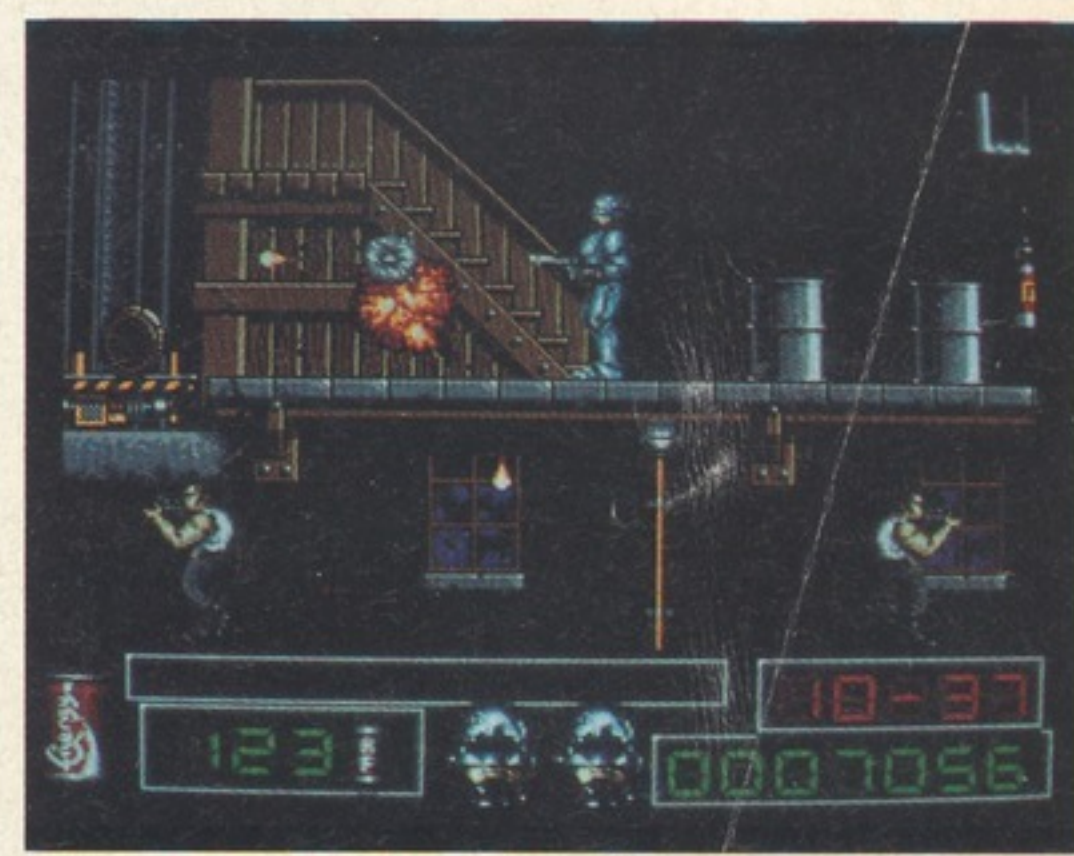
Full-feature DTP can now be yours for only £99!

**PLUS
44 PAGES
OF BARGAINS**

READY! SET! GOSUB!



How this machine won the gold medal at the world's first ever Robot Olympics



A LICENCE TO KILL

But will Robocop II total the Turtles to be the Xmas No.1?

EXPOSED! AMSTRAD'S NEXT PC

**ALL THE
SECRET DETAILS
LEAKED ON
PAGE 6**

BEAT THE JAMS



Avoid those trouble spots with a dashboard Trafficmaster



Console Crazy?

We have all the tips and tricks you need



**New TOS
warning**
Notebook wars
**Mac ROMs
shortage**
The TT latest
Flash extra
**Portable
ST news**

SHOPPING EXPRESS

CONTENTS	
AMIGA	18
ARCHIMEDES	19
ATARI	20
CD-ROM	21
Check out Disk II	22
CD-ROM	23
CD-ROM	24
CD-ROM	25
CD-ROM	26
CD-ROM	27
CD-ROM	28
CD-ROM	29
CD-ROM	30
CD-ROM	31
CD-ROM	32
CD-ROM	33
CD-ROM	34
CD-ROM	35
CD-ROM	36
CD-ROM	37
CD-ROM	38
CD-ROM	39
CD-ROM	40
CD-ROM	41
CD-ROM	42
CD-ROM	43
CD-ROM	44
CD-ROM	45
CD-ROM	46
CD-ROM	47
CD-ROM	48
CD-ROM	49
CD-ROM	50
CD-ROM	51
CD-ROM	52
CD-ROM	53
CD-ROM	54
CD-ROM	55
CD-ROM	56
CD-ROM	57
CD-ROM	58
CD-ROM	59
CD-ROM	60
CD-ROM	61
CD-ROM	62
CD-ROM	63
CD-ROM	64
CD-ROM	65
CD-ROM	66
CD-ROM	67
CD-ROM	68
CD-ROM	69
CD-ROM	70

FREE! Reader Ads Order Form

NAME _____

ADDRESS _____

POSTAL CODE _____

TELEPHONE _____

DATE _____

TERMS AND CONDITIONS

1. This form is to be filled in by the reader of the magazine.

2. It is to be used to order a copy of the magazine.

3. It is to be filled in by the reader of the magazine.

4. It is to be used to order a copy of the magazine.

5. It is to be filled in by the reader of the magazine.

6. It is to be used to order a copy of the magazine.

7. It is to be filled in by the reader of the magazine.

8. It is to be used to order a copy of the magazine.

9. It is to be filled in by the reader of the magazine.

10. It is to be used to order a copy of the magazine.

frontend

edited by Colin Campbell



It's all the same to us

Word reaches us of a tiff between Commodore and Sanyo. Apparently, Commodore's new 286 laptop the C286-LT (Express 100) is a badged version of Sanyo's MBC-17NB machine.

Badging another company's computer is called an 'OEM deal' and is not an unusual thing. But it does become just a touch uncomfortable when two companies release what amount to exactly the same machines at the same time.

The only differences are that Commodore's baby has a different carrying case, a few more grey scales and a return key is in a different place. Oh, and Commodore's machine is £300 dearer than Sanyo's (£1,999 to £1,699).

Sanyo's computer manager John Culbert said: "Commodore has done this without talking to us. It hasn't told its sales people that the laptop is a Sanyo machine."

Commodore is unrepentant. "The laptop is manufactured to Commodore's specifications. It is not the same product."

IN AT THE CHEAP END

UK Home Computers has come up with what is claimed to be the best hardware bargain of the year.

The mail order outfit is selling a fully compatible PC with monitor for a lip smacking price tag of £299 including VAT and overnight delivery. The machine is a Tri-gem Korean job with 12-inch mono monitor and single 5.25 inch drive. It shifts at 8MHz and comes with the usual expansion facilities.

"Unlike some of the other so-called PC bargains this machine is fully PC compatible," commented boss Ron Gladwyn, "I think this will make a great Christmas present, it certainly knocks the stuffing out of the ST and Amiga."

Gladwyn has 1,500 machines in stock. You can contact the company on 0793 695034.

- PC owners are currently gorging themselves on Accolade's brilliant **PGA Tour Golf**. But the exclusivity won't last long. The firm is working on versions for the ST and Amiga.
- Toshiba has developed a **digital still camera** which can store pictures to memory card. The MC200 can handle up to 400,000 pixels creating ultra-

clear images. Pictures taken can be stored onto a PC. It costs a trifling £10,000.

- The 2nd **8-bit Micro Show** has been pencilled in for Saturday December 1 at the Tamworth Arts centre. Owners of the Speccy, C64, CPC, Sam Coupe, C16, Plus 4, Vic 20, Electron and MSX can get in for 50 pence. The show kicks off at

9.30am and will feature about 20 stands.

- WordPerfect has introduced a phonetic word finder for the PC which can review more than 93,000 words in search of a specified rhyme or phonetic pattern. **Rhymer** is a terminate-and-stay-resident program costing £75. Call 0932 850500.

INDIANA JONES

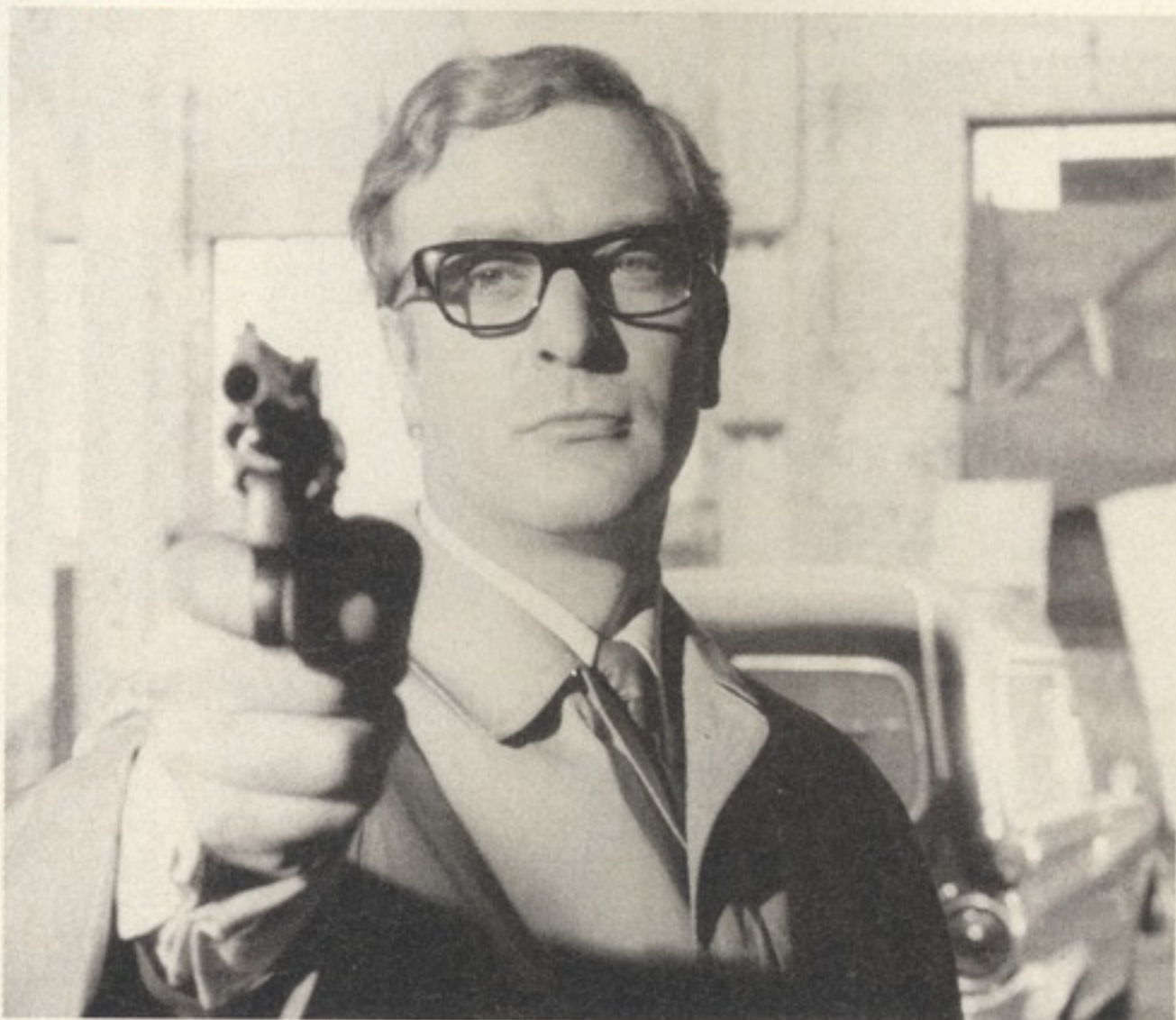


Four tops bargain box

Games players love autumn. It's that time of the year when publishers are bunging loads of games into one box and selling them for the price of one. Yes, it's bargain time.

One compilation sure to be shooting up the charts is Ocean's Hollywood Collection. Get this: *Robocop*, *Ghostbusters 2*, *Indiana Jones* and *Batman*. It's pretty hard to imagine four bigger names in one box - and they're all cracking games to boot.

Spy this for size



This man is Harry Palmer. He used to appear in British spy flicks such as *The Ipcress File* where the weather was always cold, where his bosses were seedy commies who thought it was still 1938, where his enemies were thoroughly nasty East German bastards who liked trips to the woods with pretty girls and Lugers and everyone drunk vodka.

His job was to track down members of the Stasi (East German secret police) and nick all their unlikely technical secrets, which MI6 could then give back to the Russians.

Unfortunately, Palmer and his like have now been replaced by the 'Men In Suits' from high-tech American corporations. With Germany now well and truly re-united the Americans have cottoned on to the notion that these boffins know a thing or two about computers and communications. And they're hoping to find out all their secrets.

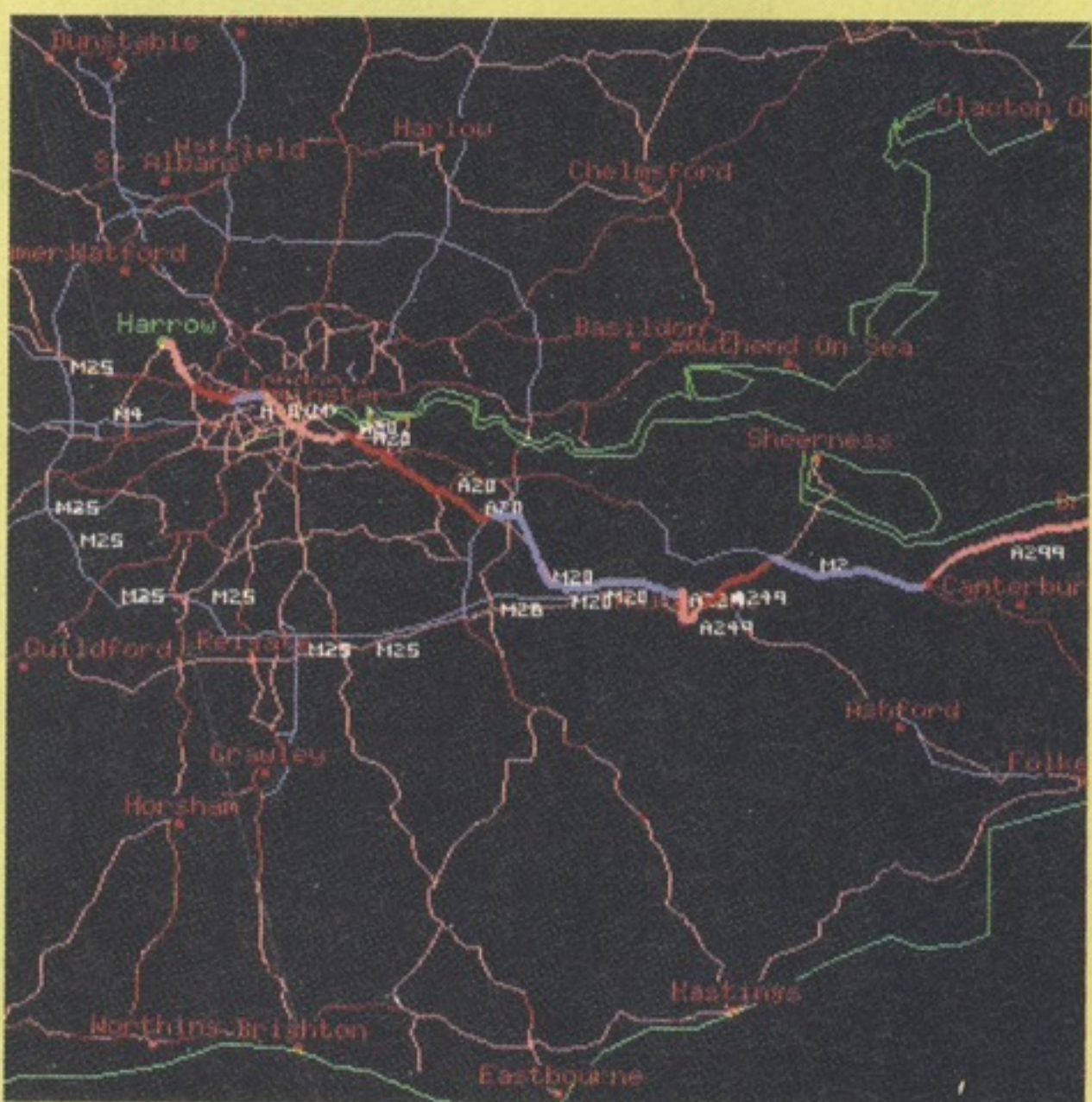
So as not to miss out on the rush, currently unemployed ex-Stasi members are taking out ads in West German newspapers advertising their skills and availability. News service Reuters noted: "The knowledge they claim of computers and installing and maintaining radio equipment suggests their duties went beyond writing press releases for the army newspaper."

Car cuisine

Those who found the computer road-route planner *Autoroute* of use may be interested to hear of the latest update from publisher NextBase.

Autoroute can now, for a modest £30 (plus VAT), include an exhaustive list of AA recommended restaurants, so you can plan your eating at the same time as you plan your driving. The *Autoroute Plus* gazetter contains key information on a variety of restaurants, which appears on-screen when required, allowing you to choose a price-range and whatever type of cuisine your palate desires.

Available now from NextBase on 0784 460077.





JAPANESE LAUNCH A BEAUTY

Despite an impressive technical specification, backing from some of the world's major consumer electronics companies and a Japanese user base of some four million, the MSX never quite cut it in Europe.

Now Panasonic has launched the 16-bit MSX 3, with vastly improved graphics and a running speed to leave the ST and Amiga standing. The new machine is 100 per cent compatible with previous versions, but runs at five times the speed (that's about 16MHz). It features a new CPU called the R800 which is also compatible with the Z80. Panasonic has kept a 256K RAM and decided against altering the popular operating system MSX-DOS 2.

It is being touted as a home and small business solution and comes with a special chip which

enables word processed documents to be spoken. Called the FS-A1ST it will be launched in Japan later this month with a retail price of 87,800 yen (approximately £400).

Not surprisingly, no plans have been made for a European launch. The original MSX was launched in Britain in 1983, arguably home computing's darkest year (remember Oric and Enterprise?). Some have called MSX the "unluckiest machine of the 1980s"; it never shook off the 'non-starter' tag and no serious attempts were ever made to relaunch here.

Keith Neal, head of the UK MSX User Club, told Express: "There are about 3,000 loyal users in Britain, but I fear they're going to have problems getting hold of this beauty". MSX fans can contact the club on 0775 711108. ■

Jocky's up to the oche

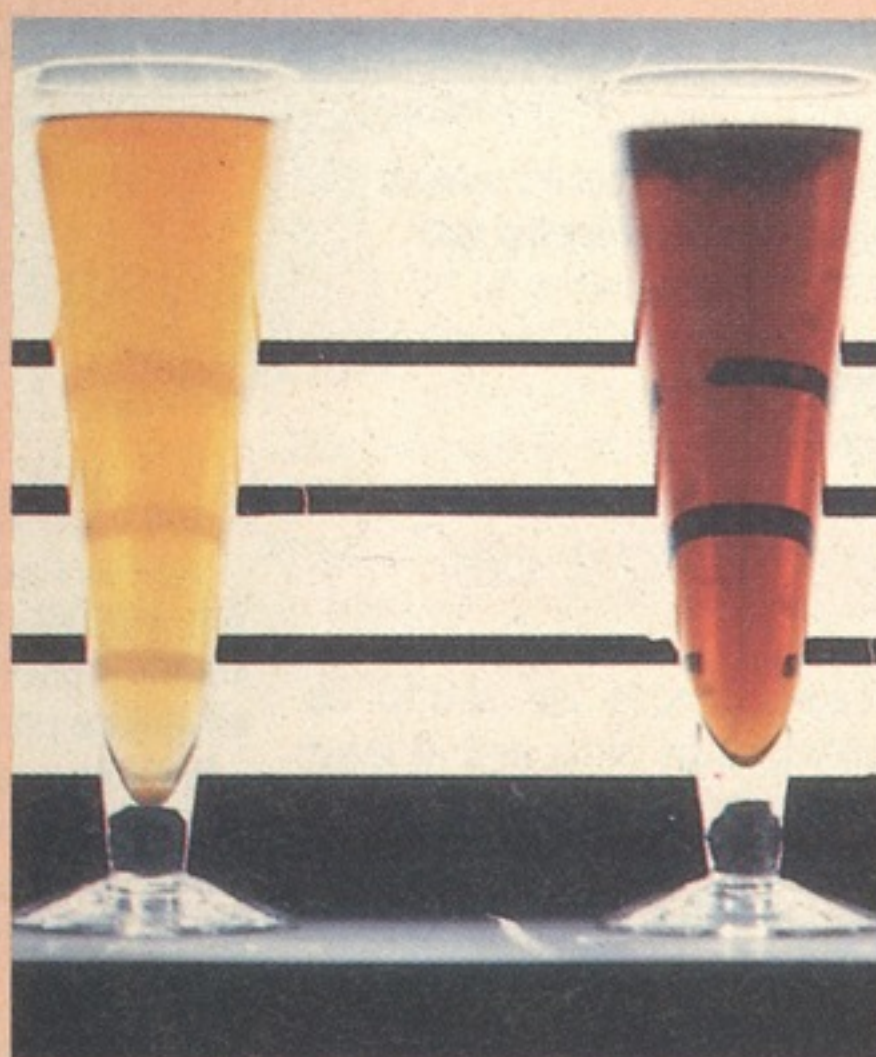
Lager swiller extraordinaire and wicked arrow chucker Jocky Wilson has made it to the ST and Amiga.

The 16-bit versions of Jocky Wilson's Darts Challenge are launched this week, giving you the chance to shout "Game On", "Yessss" and "One Hundred and Eighteeee" from the comfort of your own home computer.

Up to four players can step onto the oche for a sincere battle of steady hands and keen eyes, or you can try your hand against the master himself.

Publisher Zeppelin has also included a tutor which will lead players through "the complexities of finishing in the quickest and easiest manner".

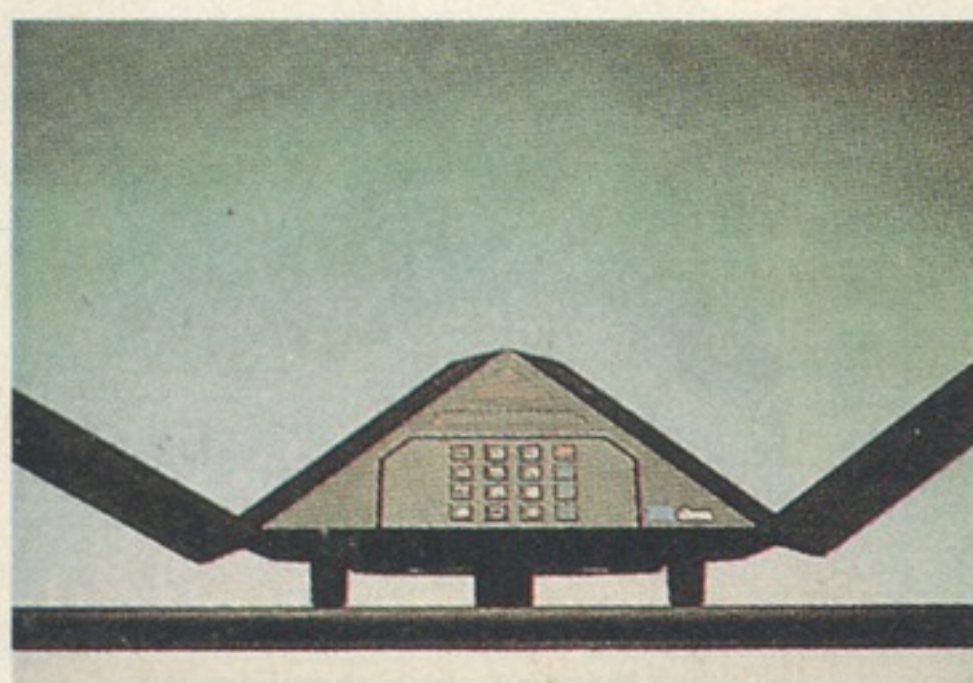
Jocky Wilson is already available on the big three 8-bits; the ST and Amiga versions cost £9.95. ■



A picture of stealth

Axel's Multipoint phone system, dubbed the 'Stealth' phone because of its uncanny resemblance to the bomber, is a multi-user French device allowing for simultaneous transmission of videographic images over France's infinitely more sexy phone system.

Although calls cost some £8 per half hour, the system is proving popular with teleconferencing businesses. ■



CONTENTS

FEATURES

Mechanical men race home

The first robot olympics saw the speed kings of the cybernetic world compete – page 66

On the road to chaos

Will in-car computing make traffic queues a thing of the past? – page 72

REVIEWS

DTP on the cheap

A new desktop publishing package for the PC offers power without the price – page 68

The most laid back monitor

Could a desktop LCD be the answer to eyestrain? – page 70

EVERY WEEK

Games Week

News, reviews and tips – page 63

The Console Zone

Playing tips for your console favourites, plus news including Xenon II – page 64



WIN a laser printer

... and a set of train simulators – page 74

News	4-9
Opinion	10
Letters	13

SHOPPING EXPRESS

Amiga	22	PC	26
Spectrum	27	ST	28
PD Column	30	Whole Wired	
World	32	On-line	36
Circuit City	39	Centrefold	43
Tech Tips	58		

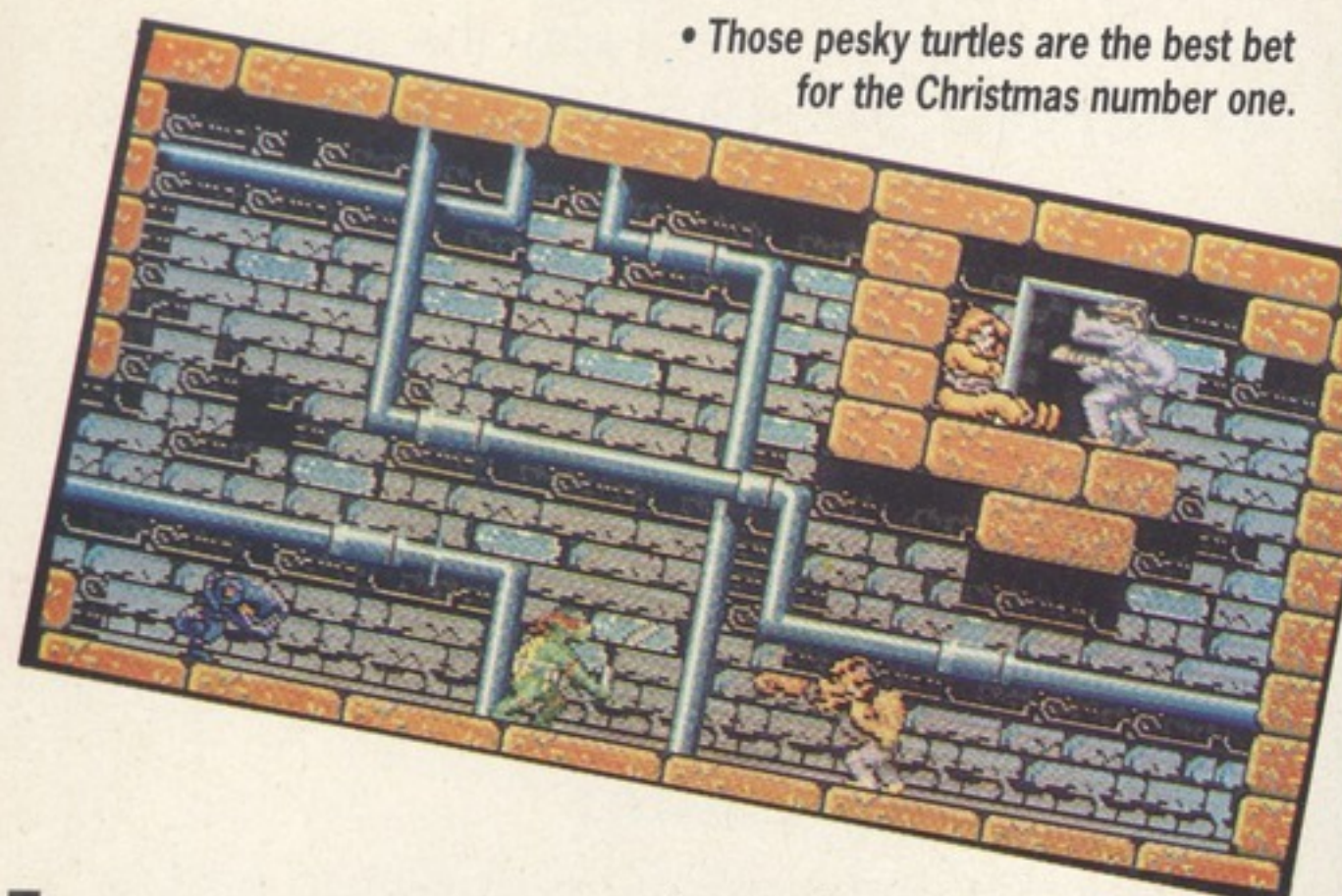


• Arc colour hand scanner tested.

Archimedes	23
CPC	24
C64	25

Whether you're into splatter, strategy or speed, the chances are you'll be splashing out for a computer game before the end of this year. So whether you're buying one for a friend, suggesting the granny and grandad that a version of Funschool, [albeit an excellent outing for the younger brethren and sistren but not for the more astute player] isn't really what you'd like to see in the old stocking on Chrimble morning, you should give the following spread a look. What are the big names and the best games to look out for? Mark Higham runs through the top 20 games for this Christmas. And Express lays the odds for the coveted Christmas Number One. Check how each game rates in the orange box under its title.

A TASTE OF THIS YEAR'S TOP BIG NAMES AND



• Those pesky turtles are the best bet for the Christmas number one.

TEENAGE MUTANT HERO TURTLES

Imageworks/Mirrorsoft

Odds 2-1 Odds

If there's one thing you can be sure of this Christmas, it's that those oversized reptiles are going to pretty damned close to the Number One slot.

Donatello, Raphael, Leonardo and Michaelangelo make it into this multi-level game, taking you through sewers and into New York in a bid to overcome evil. At the moment you can stick a turtle on anything and it'll sell.

The opinion of people in the know is that those pesky turtles might make it to Number One but the game itself is going to be pretty dire.

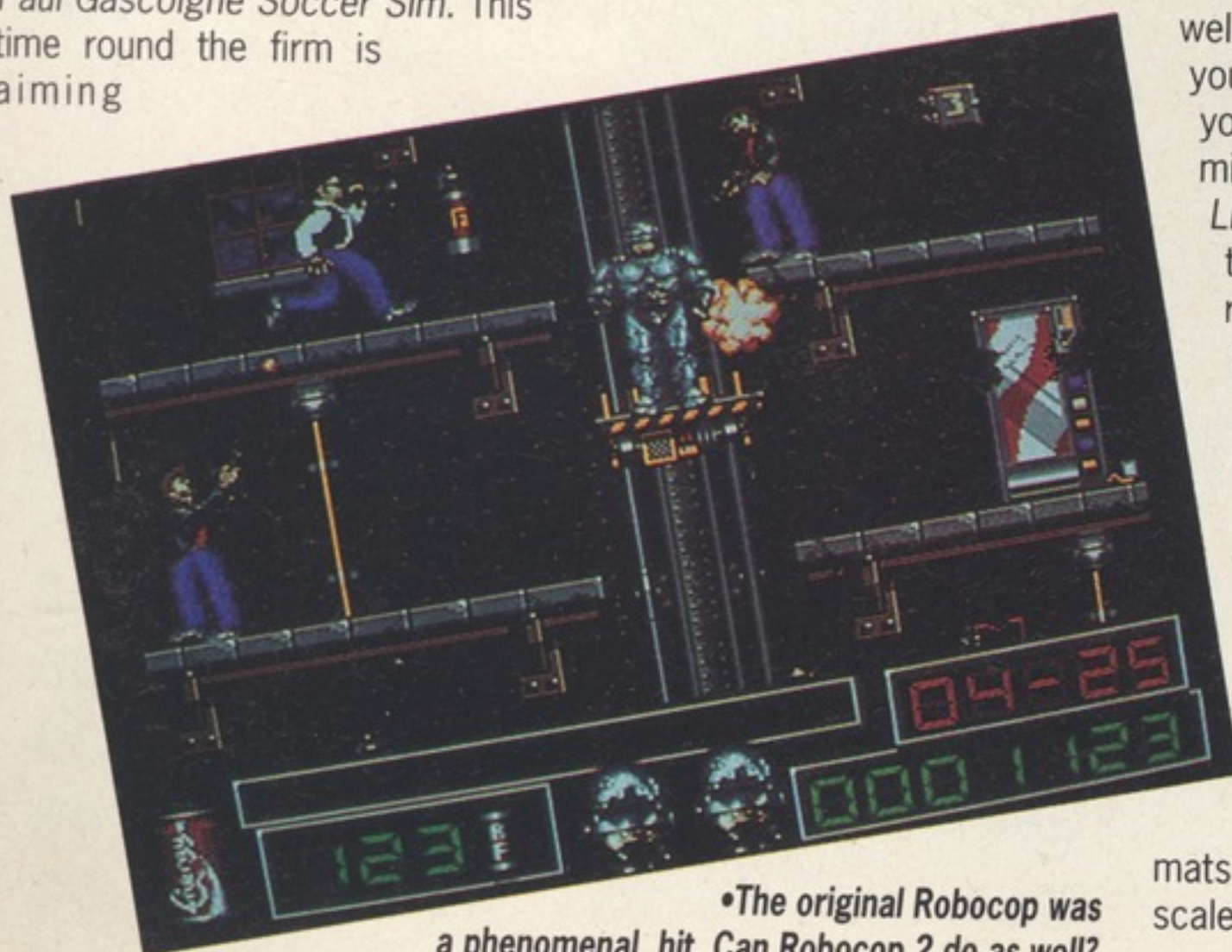
GAZZA

Empire/Entertainment International

Odds 3-1 Odds

Last year EI signed up football supremo Paul Gascoigne on a two-year contract, then promptly released Gazza's Super Soccer, an appallingly unplayable game.

Now EI is releasing a second game, titled Gazza - the Official Paul Gascoigne Soccer Sim. This time round the firm is aiming



• The original Robocop was a phenomenal hit. Can Robocop 2 do as well?

to produce a more memorable game. Gazza, the game will be split into two parts - the main football action and an extensive management area.

Early demos are already available and the action part of the game looks well hard, though no one is really expecting it to outshine Anco's Kick Off 2.

A popular choice, but after a summer of football game after football game, is anyone going to want another?

ROBOCOP 2

Ocean

Odds 4-1 Odds

Ocean made computer history when its conversion of Robocop stayed in the charts for a year, longer than any other game. Hardly surprisingly, it's now bought the licence for the follow-up, and Robocop 2 is going to be Ocean's strongest contender for that enviable Number One slot.

This is predictably a beat-'em-up in the same mould as the original except that it's played on separate platforms. Better visuals and hosts of new features are on offer.

TOTAL RECALL

Ocean

Odds 8-1 Odds

Certainly a big film licence, but Total Recall doesn't have the hype of big names like Batman so it's unlikely to do nearly as well. Nevertheless, it's second in Ocean's list of Xmas contenders.

Screenshots prove that Arnie looks far more realistic in Total Recall than he ever did in the Predator conversion so film enthusiasts are certain to love it.

The film offers enormous scope for a good game and early signs are that it may be a variation on the traditional shoot-'em-up with hosts of weaponry and daunting mutants.



• Strider 2 - back with a vengeance but it's unlikely to make it into the Xmas top ten.

LINE OF FIRE

Us Gold

Odds 17-2 Odds

Arcade licences are almost as well-known as films and at least you know what type of game you're getting. For those who missed this arcade smash, Line Of Fire pitted you against the skills of Middle-East terrorists. Different scenarios and different methods of travel liven up the non-stop blasting.

Programmers have suggested that the arcade game is just too complex to convert onto the home micro so don't hold your breath for a realistic conversion.

Released on all formats, this could sell enough to scale the charts.

STRIDER 2

Us Gold

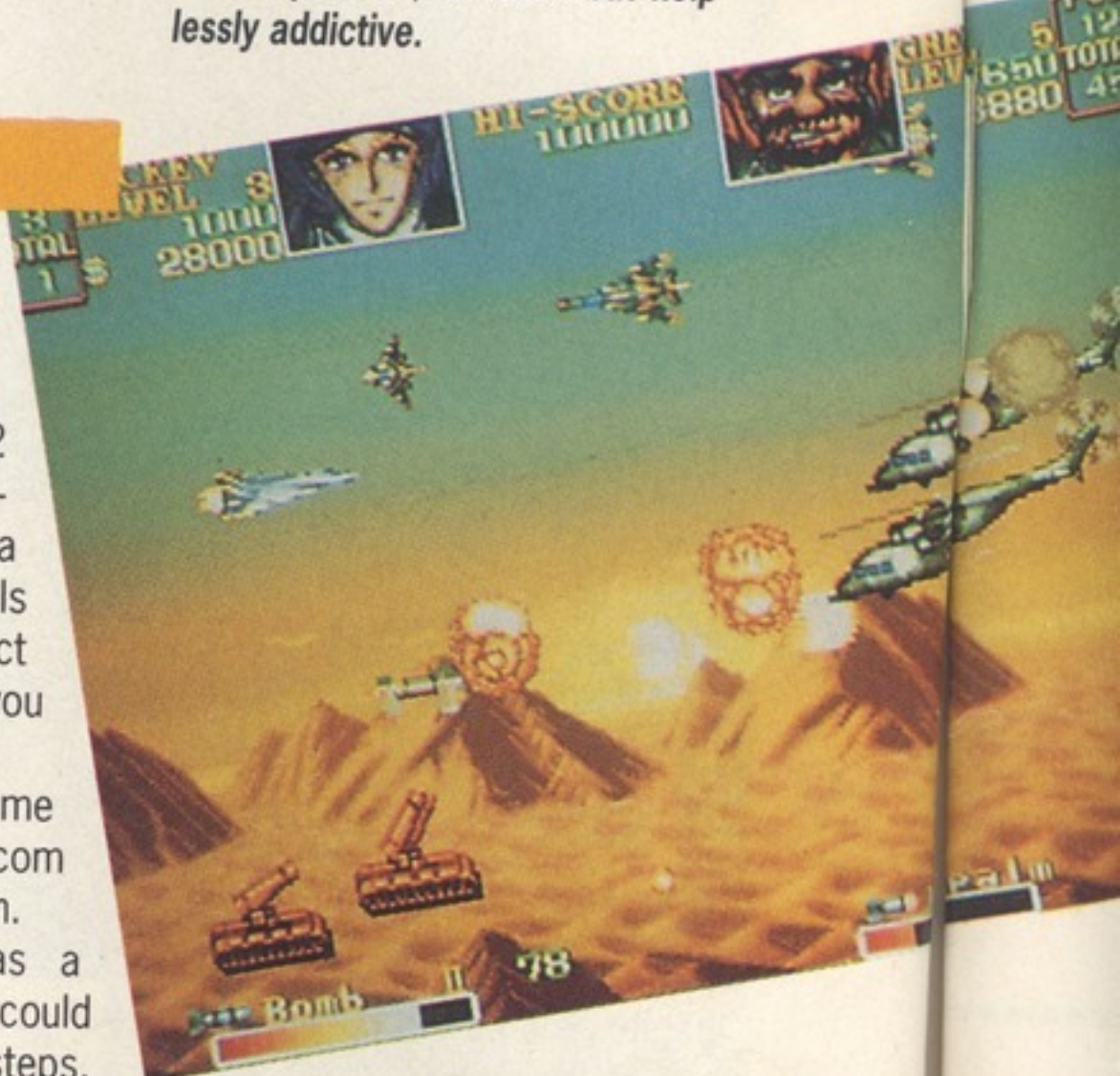
Odds 9-4 Odds

The first Strider game was acclaimed as the most perfect arcade conversion ever. In version 2 you have to use your acrobatic hero to discover a route through the levels while remembering to collect pods which can change you into a robot.

Strider 2 is the first game to be converted into a Capcom coin-op which is a good sign.

The original Strider was a huge hit and Strider 2 could eventually follow in its footsteps. Although the game boasts lots of new features, this Christmas is going to be dominated by movie licences, leaving little room for an original concept.

• UN Squadron, is dated but helplessly addictive.



UN SQUADRON

Us Gold

Odds 12-1 Odds

Take to the skies, blast everything in sight and try to come back with your plane and both legs intact. UN Squadron was a big name at the arcades, but we've seen hosts of similar games on the home micro since.

Early 16-bit demos suggest that its gameplay just doesn't come up to scratch so make sure you read a review before investing in this one.

POWERMONGER

Electronic Arts

Odds 16-1 Odds

Powermonger is an off-beat wargame played on an isometric landscape. The idea is to take control of people and put them to work building weapons or growing food for your swelling tribe. This is undoubtedly going to be a big hit,



• Powermonger could find the same success as Populous

TOP TWENTY CHRISTMAS AND BEST GAMES

but with no 8-bit versions planned, it's unlikely to make the Xmas top ten.

MIDWINTER 2 Microprose

Odds 20-1 Odds

Bit of a surprise, this one. We can reveal that Microprose is working on a follow-up to *Midwinter*. Few details at the moment, but it's certain to be a mixture of strategy and arcade action sequences.

We've already seen early demo proving that this time the game isn't played on just one island but many. The earth has warmed up and people are rapidly laying claim to new land. The game includes some impressive fractal landscape generators as well as some exhilarating gameplay.

It's doubtful whether Microprose can come up with the goods before Xmas.

DICK TRACY Titus/Entertainment International

Odds 19-1 Odds

It was a big surprise when it was announced that Titus had the *Dick Tracy* licence, not least because it's their first attempt at a movie interpretation. Like Ocean's *The Untouchables*, *Dick* is going to be a pot pourri of hackneyed game styles rolled into a single release. Ugh!

DIZZY 4 CODEMASTERS

Odds 46-1 Odds

At present Codemasters is still claiming there's no such thing as a *Dizzy 4*, but take it from us, this cutesy hero is definitely going to be popping up again at Christmas. Don't expect anything new. Yawn!

MUDS Rainbow Arts

Odds 22-1 Odds

If you're bored with football games then how about this comic alternative? The *MUDS* tournament involves you in a frisbee match, playing with live frisbees – well weird! Separate management and arcade sections test your skill and strategy. Popular publisher Lucasfilm is also involved in the production of *MUDS* so this could turn out to be one hot release.

JAMES BOND Millennium

Odds 27-1 Odds

Superspy Bond has an underwater equivalent who's given his screen debut in this comic *Millennium* game. *Pond* is played in underwater settings which challenge you to solve intriguing puzzles. Looking forward to seeing *Pond's* taste in females.

FLIGHT OF THE INTRUDER Spectrum Holobyte /Mirrorsoft

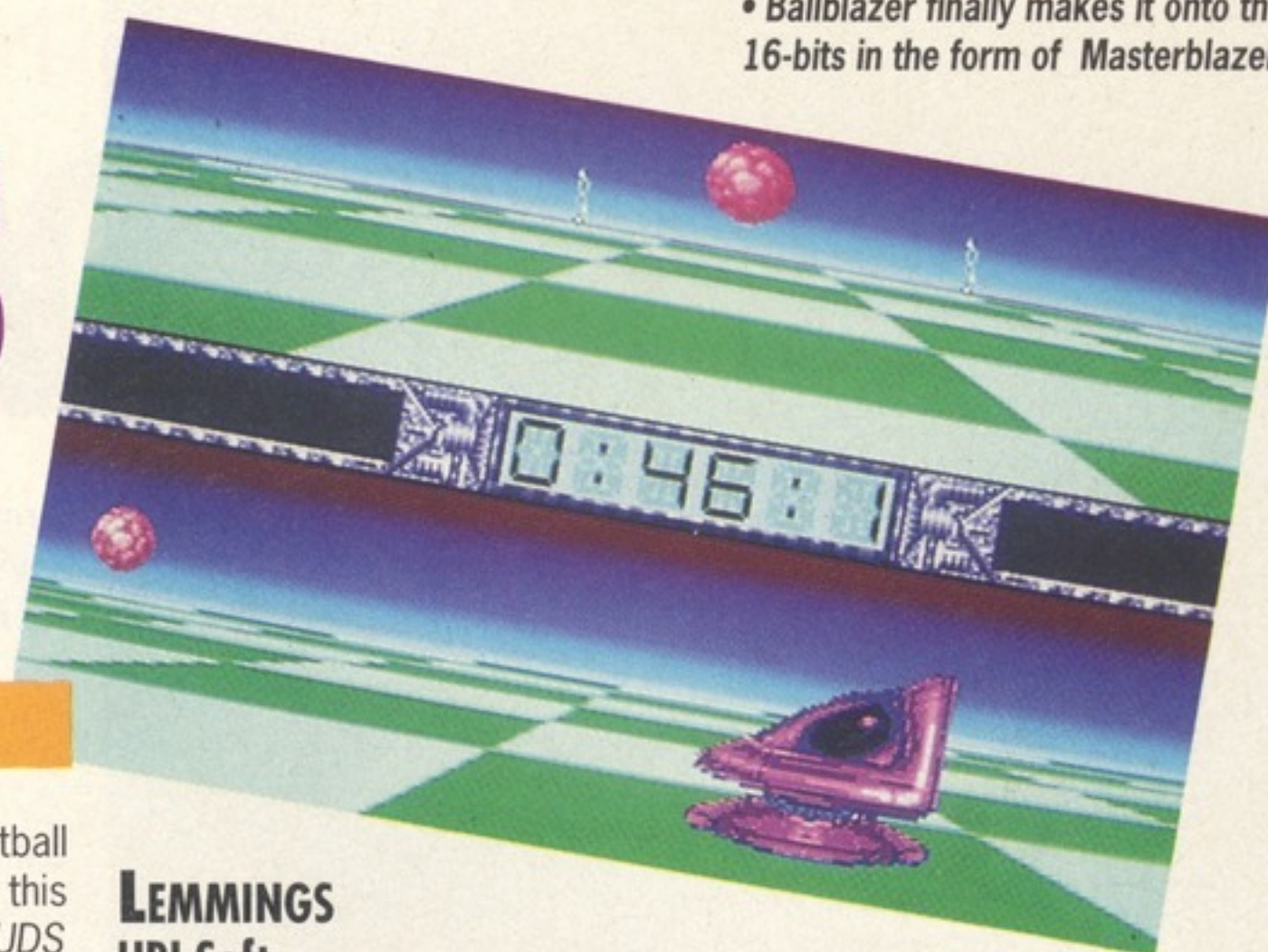
Odds 29-1 Odds

The only flight sim likely to be in the Xmas charts but with no 8-bit versions it's unlikely to reach a high position. Set in the 1972 Linebacker campaign over North Vietnam, you can fly either an *Intruder* or *Phantom*. This is seriously realistic.

MASTERBLAZER Rainbow Arts

Odds 33-1 Odds

This is the follow-up to the original *Ballblazer*. High-speed ball games are nothing new so Rainbow Arts is hoping to attract people with quality 3D graphics. The playing field is reckoned to move even faster than the one in US Gold's *Vaxine*. Sadly, only 16-bit versions are being coded.



• Ballblazer finally makes it onto the 16-bits in the form of Masterblazer.

LEMMINGS UBI Soft

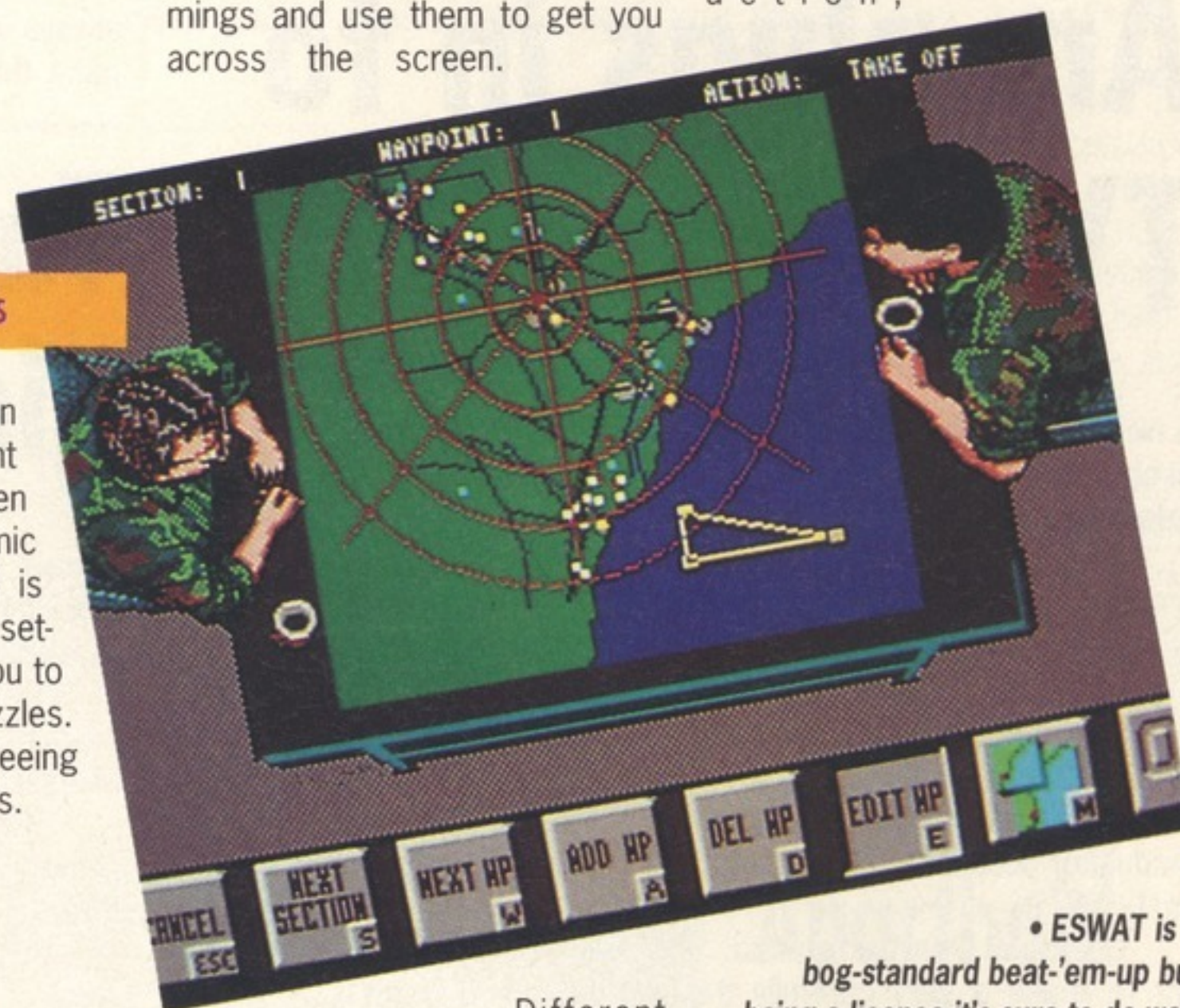
Odds 37-1 Odds

This is the best in a line-up of original games coming from the *Psygnosis* stable. The idea is to take control of up to 100 lemmings and use them to get you across the screen.

ESWAT Us Gold

Odds 14-1 Odds

Taking on *Robocop* for beat-'em-action,



• ESWAT is a bog-standard beat-'em-up but being a licence it's sure to do well.

Different lemmings have different abilities which you can use to clear treacherous terrain. Thus, if you wanted to cross a giant crevasse you would employ some of lemmings in a bridge building exercise. Early screenshots suggest that the sprites are very small but the gameplay is certainly original.

Sadly only 16-bit versions are currently being coded.

If you don't like it you could always jump off a cliff.

ESWAT places you in the unenviable position of *Cyber Cop*. Dressed only in a Police uniform and a handy bullet proof vest you need to blast everything that comes towards you – not exactly gripping original stuff. 15 levels of visually exciting action, power-ups and the traditional end-of-level guardian makes it a pretty average fight.



• Dick Tracy was a hit film but can Titus come up with a decent game?

DRAGON BREED Activision

Odds 17-1 Odds

The beauty of this arcade hit is the visuals. Instead of dodging alien missiles you ride around on a Chinese Dragon using its tail to protect yourself from enemy firepower. Lots of pickups keep the game addictive but the levels are very short. This is a seriously mega arcade game but can Activision deliver the goods?

BAT UBI Soft

Odds 21-1 Odds

This visual-feast of an adventure has been talked about for the last two years so it's certainly a well-known name. The ST version comes with one hell of a gimmick: an additional cartridge which gives 16-channel sound the like of which has never been heard on an ST (but at £40 it's a bit steep).

By now *BAT* is a well-known game with incredible graphics and quality sound. It could have the edge over its closest rivals.



• A Lucasfilm tie-up bodes well for MUDs.



• A3000: new bundle can plug in to the telly.

Arc plugs in to TV strategy

A new bundle has been launched which will allow buyers of the Archimedes A3000 to connect their 32-bit machine to their television sets.

Trade distributor ZCL has teamed up with Acorn to release the Jet Set pack. It features an A3000 with "monitor quality" TV adaptor. The pack also comes with four games – flight simulator *Interdictor*, *Superior Golf*, *Trivial Pursuit* and *Euclid*. The usual painting, word processing, drawing and music software is also included. Jet Set retails at £650.

Previously, it was not possible to buy an Archimedes with TV modulator included. ZCL points out that an A3000 with a monitor costs £819.

Chairman Don Carter said: "This is a real opportunity for a parent to make a very carefully thought through Christmas purchase. Long after the excitement of the Jet Pack has cooled, the benefits of the computer chosen by 85 per cent of our schools will be apparent, as will its relevance to the National Curriculum." ■

Step inside your PC

Vision is a new system designed to create virtual reality environments, and it is PC compatible.

The package makes use of the by now classic cyber tools of datagloves, stereo sound and colour visuals and is claimed to produce true VR for a wide range of applications.

Users are able to network several systems across a number of computer hosts, the PC being one such machine. It

makes use of parallel processing in order to produce the speed required for a seamless cyber world.

The price tag of £100,000 will obviously put *Vision* out of the hands of most users. But for a demonstration you should jack into the Computer Graphics Show on October 9 to 11 at the Wembley Exhibition Centre.

For more information call manufacturer Division on 0454 324527. ■

Fraud on the fly

Nine people were arrested last week in connection with a massive £40 million computer fraud carried out at the expense of British Aerospace.

Police swooped on addresses in Edinburgh, London and Bristol following extensive multinational

investigations in Australia, Hong Kong, Switzerland, Guernsey and the Isle of Man.

With Aerospace presenting a firm "no comment" on the affair, details are sketchy as to the computerised methods used by the flying fraudsters. ■

News leaked of a £199 briefcase 'Mobile Computer' AMSTRAD'S Z88

Amstrad will launch a Z88 style laptop next year for £199, *Express* can reveal.

The as yet un-named machine, unofficially dubbed the Mobile Computer Wordprocessor, will be an A4 sized portable aimed at the low-cost professional end of the market. It is being described as a "Z88 basher" and a "PCW on your knee". Hanover CeBit show next June will act as the launchpad with full UK availability by the late summer.

A price-point of £199 has been provisionally agreed upon by Amstrad chiefs although, as always with the Brentwood company, the final pricing decision is

being left until the last possible moment.

The MCW will be pitched against Cambridge Computer's two-year old Z88 and Tandy's new T102 laptop. Both are enjoying success in the High Street, with retail tags of £264 and £287 respectively.

An Amstrad insider told *Express* that no disk drive will be included, but the simplicity of transferring text to desktop PCs will be stressed in advertising campaigns. Amstrad is understood to be developing link facilities to enable transfer between the MCW and both its PC and PCW range.

Software on ROM will in-

clude a word processor, organiser software and possibly a cut-down spreadsheet. But it will definitely be a machine for wordsmiths on the move, rather than a complete portable solution.

It will come with a full type-writer style keyboard and will weigh about two pounds. An RS232 interface and printer port will be included.

Details of the screen are hazy at best but it is thought that the Amstrad machine will not be dissimilar to the Tandy T102 which offers an LCD with contrast control boasting eight lines by 80 characters. Like the Tandy it will run on four AA batteries, power consumption being

Take a taped trip around a giant computer

A new video called *How Computers Work* has been put together in the United States which will allow reviewers to explore the Walk-Through Computer.

The huge computer, 50 times bigger than a normal PC, is currently stabled at The Computer Museum in Boston Massachusetts.

The video features David Heil, a American media celeb, showing four teenagers around his computer. The teens are given a tour of the CPU, disk drive, video card and RAM, in fact they get so enthusiastic that they end up playing out the parts of the components.

Animation is also used to show the interaction between software and hardware.

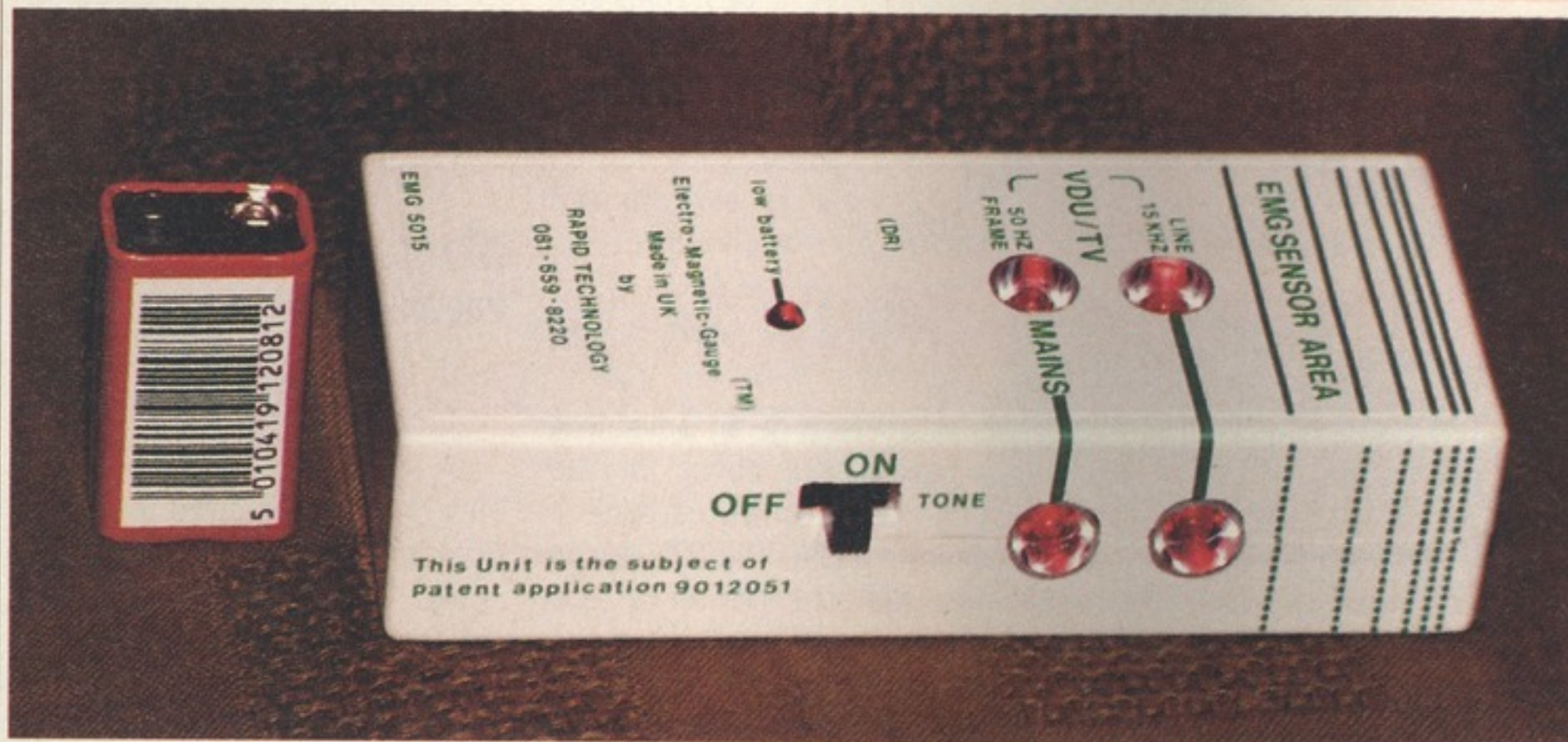
British interest in the video comes in the form of the BBC's John Palfreman who was the producer. *How Computers Work* is already available to the US public and costs \$19.95. UK conversions are planned. ■

• *Express* reported on the giant walk-through computer back in issue 78.



• Big is beautiful: walk through the world's biggest computer.

IS YOUR MICRO YOUR FRIEND?



• The Electro Magnetic Gauge (above) is new gadget aimed at discovering how much low frequency electro magnetic radiation your computer throws out.

Many horror stories have arisen over the last few years about the increased chances of cancer, or of childhood leukaemia contracted from such low fre-

quency radiation emissions. Machines such as the gauge have been developed to meet a growing demand.

The Electro Magnetic Gauge costs £98, but can be hired for £28 per day. For more information call 081-659 8220. ■

• A safer kind of monitor is reviewed on page 70.

Computer Word processor' set for summer '91 launch 88 BASHER EXPOSED

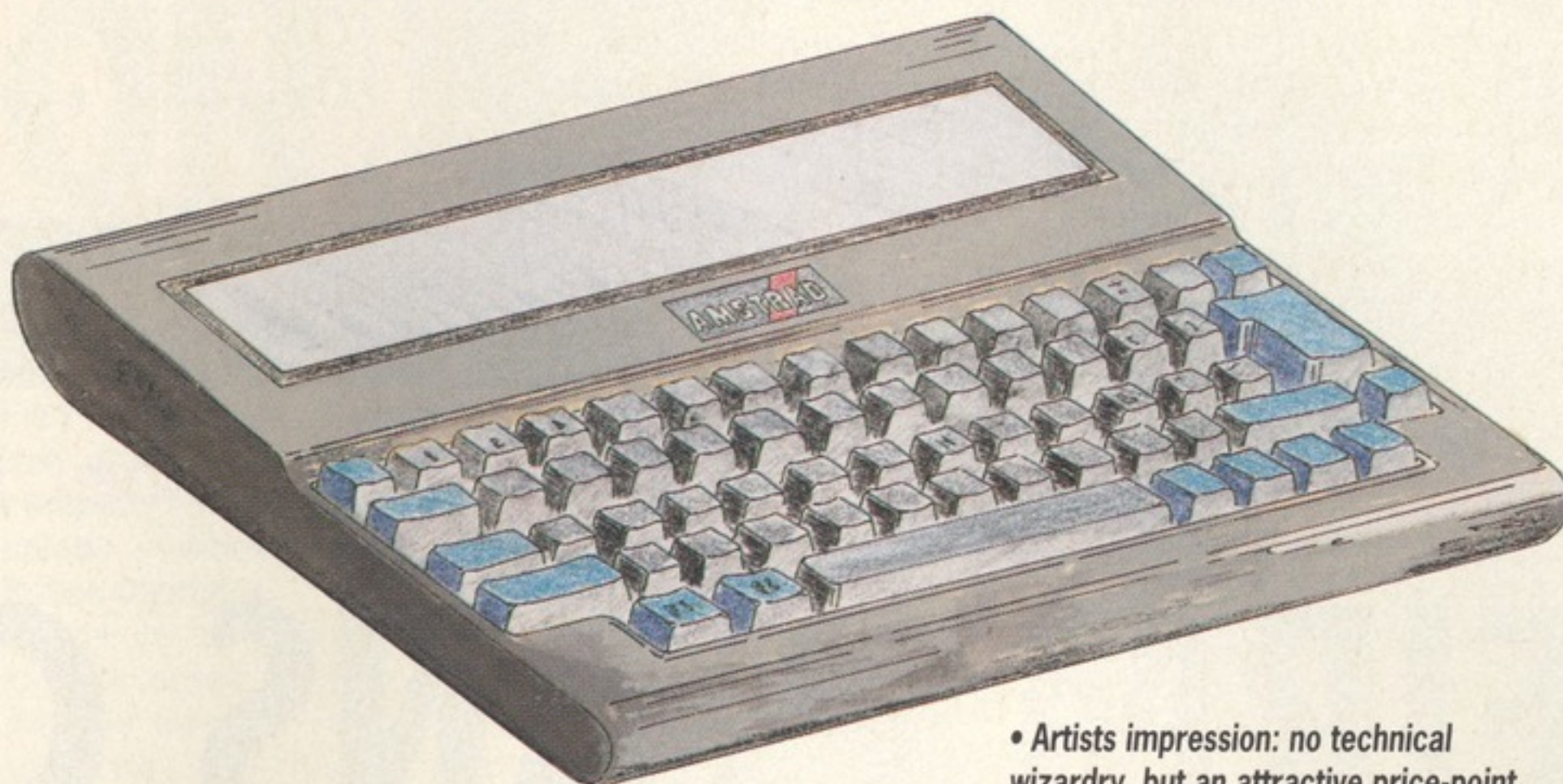
low as it has no disk drive.

At the heart of the machine will be a Z80 processor running at about 5MHz.

Not surprisingly Amstrad is entirely denying the existence of any such machine. A spokesman told *Express*: "I know nothing about this. Amstrad is moving away from the low cost end of the market. We don't think there's enough money in it."

He added: "The only low-cost machines are in the leisure area where we are firmly established as a brand name."

Nevertheless, usually impeccable sources insist that the go-ahead has been given at the highest possible level. ■



• Artists impression: no technical wizardry, but an attractive price-point.

Silicon swiped

Silicon Valley in California is experiencing a crime wave. Just last week a firm called Songtech was raided by five besuited bandits, all of whom were armed with pistols.

The quintet made off with \$10,000 worth of chips as well as some \$1,800 worth of Songtech staff's personal belongings.

It appears that the gang had spent some time planning the robbery and had visited the premises prior to carrying out the dastardly digital deed.

Although the staff were tied up with tape it seems that the thieves were non-violent, with one notable exception. One lady was slapped around the mouth when the raiders attempted to take her necklace.

The Songtech blag is not an isolated incident. Similar raids have taken place all over the South Bay area, and the authorities have christened them 'Takeover robberies'.

A police spokesman commented "We've had this type of robbery before. It's being investigated as possibly related to others in the area where they'll come and do takeovers like this of computer companies and actually steal the chips." ■

Flight sim in court over air catastrophe

A flight training simulator is being blamed for an horrific 1987 air crash.

North West Airlines is taking CAE Electronics, the maker of the simulator, to court in an attempt to prove that the training received by the cabin crew lead them to make the fatal errors which lead to the tragedy.

The sky-high catastrophe began when the pilot attempted to take off without first correctly utilising the plane's flaps and slats. A report into the crash stated that the standard take-off checklist was not completed by the crew. This error was further exacerbated by a fluke electronic failure which resulted in warning lights and alarm signals not activating.

North West Airlines claims that the training simulator taught the pilot and crew to expect the full panoply of warnings, light and sound to the max, in the event of systems failure.

But in the real aircraft the alarm signal which is supposed to warn of an alarm system failure is a silent warning. No bells, no sirens. So



• Disaster: fears are growing that computer equipment could be to blame for some air crashes.

when the Alarm Signal Failure alarm failed they simply assumed that all was right with the plane and took off.

Further to this, North West claims that its

crew were confused by being able to select an option on the real aircraft which is not allowed on the simulator. Not surprisingly CAE Electronics is dismissing the claims. ■

Apartheid attack

A computer company based outside Johannesburg which sells equipment to anti-apartheid organisations such as the ANC recently received a parcel bomb which killed an employee.

Nic Cruise of PC Plus Consultants, the firm concerned, opened the package and was fatally injured in the ensuing explosion.

The African National Congress said that Cruise was a victim "... of dark forces". ■

Video Toaster finally ready

After a development period of four years NewTek is finally to release its Video Toaster for the Amiga.

It is being touted as the ultimate home computer program for video editing. The firm's Steve Peterson said: "It really puts \$100,000 worth of video equipment into a desktop package. And it's true broadcast quality, not just digitised like the boards for the Macintosh. This will revolutionise the video industry, bringing the capability for professional video effects to an affordable level." It will retail in the US for \$1,595.

The complete system was shown to the US Amiga Users Group last week. One attendant was quoted as exclaiming: "We left there with our jaws dropping. It was like producing MTV style video effects on a home computer."

The Video Toaster has seven input switching, digital video effects, frame grab and store, character generation, 24-bit frame buffer, 3D animation and 24-bit paint capabilities.

Wire service Newsbytes believes it will be as significant to the future of the Amiga as the introduction of the Apple LaserWriter and Aldus' PageMaker desktop publishing package was to the Macintosh.

As yet UK distribution has not been agreed although dedicated importers are likely to be bringing the Toaster into the country before the end of this year.

NewTek in the States can be contacted on 0101 800 843 8934. ■



Sew what?

Do you often feel stitched-up by computer companies? Does software give you the needle? Well at long last there's a firm which does all this deliberately.

HTB Computers has released *Designer*, a program which seeks to aid knitters and embroidery freaks in their quest for fabric fun. It runs on the PCW and CPC with a PC version due out soon.

The price is £19.95. For more information call HTB Computers on 0794 516279. ■

Viral explosion

There is an argument which says that it's not the bullet that kills, but the person who pulls the trigger. This should be borne in mind when dealing with a public domain disk from Amiga-nuts United.

The disk, called Bootshop, contains over 40 viruses all of which can be examined as code. More worrying, they can also be written to the boot blocks of other disks. The general idea is that the interested user gets to examine the nasties in a 'safe' environment.

Also on the disk are a variety of virus killers. See the PD Column on page 30. ■

UN goes green

The United Nations is to set up a major Green database. Over 40 countries will be involved in the project called the International Cleaner Production Information Clearinghouse (IPIC).

Data will include new techniques for 'greener' production of industrial materials, general research and development information, and ecologically sound information useful to governments and businesses.

IPIC will make use of the existing Pollution Prevention Information Exchange System which is run in America by the US Environmental Protection Agency. ■

Special K

Kuma has launched two new versions of its Amiga spreadsheet K-Spread.

The cheapest, K-Spread 3, costs £79.95, sports over 200 functions covering database, financial, logical, statistical, string handling and time and date calculations. Users can define functions and add them through drop down menus.

Multiple worksheets can be loaded into memory and files can be combined.

K-Spread 4 costs £99.95 includes all the features of its sister program, plus a number of graphing facilities and macros (enabling you to link sequences of commands). ■

Business order

One of Britain's top business centres, The London Business School, has told prospective students that they must own a computer if they want to study in 1991.

The machines must be MS-DOS compatible so the school has teamed up with Toshiba to secure a student discount of 45 per cent on the T1000XE laptop, which normally retails at £1,795. ■

The prize is right

Atari ST and Amiga owners will have the chance to win loads of prizes when Impressions releases a new computer-based TV quiz game, Win-A-Billion, in November. Unfortunately, all the prizes are imaginary.

The game, seemingly introduced by some mutant hybrid of Jonathan Ross and Leslie Crowther, allows up to six contestants to answer question on subjects ranging from music to travel, and other Trivial Pursuit-style topics. The format is multiple-choice-based, players choosing the answers with a mouse - and they have a minute to answer an ever increasing number of questions.

Among the wondrous and make believe prizes on offer are - surprise, surprise - a billion dollars, and the whole of Britain. Whether the latter is supposed to be the consolation booby prize is unclear. ■



• Win-A-Billion: challenging questions, astounding prizes.

£30 a month aims to cut out consumer risk

FIRM PLANS CDTV RENTAL SCHEME

You'd very much like to get your hands on an Amiga CDTV, right?

You've heard enough about what a great piece of kit it is, and now you reckon it's time for you to indulge?

Only trouble is, you don't have £700 spare to lay out on untried technology.

Relax, manufacturer Commodore has this covered. The firm is negotiating with a number of High Street television and video rental outlets, in an attempt to organise a nationwide CDTV rental scheme.

The idea is to introduce people to interactive Compact Disc en-

tertainment, without them having to risk a large down-payment.

Commodore is set to launch the CDTV in the early spring, following an extensive beta testing programme. The firm's UK boss Steve Franklin firmly believes the machine to be more of a consumer electronics product than simply a computer.

He reckons that since the technology is so simple to use, it should be simple to obtain. The CDTV will be hired out through one or two High Street chains along with a selection of Compact Discs.

A spokesman for Commodore confirmed that negotiations were

underway with rental outlets.

"We're looking at it very closely, but nothing has been signed or sealed," he said. He could not say how much the monthly charge would be, however, a figure between £25 and £30 per month is being considered.

In the early 1980s some companies attempted home computer rental deals, but a variety of factors caused them to be failures. But the 'easy-to-use' factor of the CDTV, its CD-based



• CDTV: rent instead of buy.

software and the fact that it looks more like a video recorder than a computer, could go in its favour. ■

Infinitely better PC

The Infinity Desktop PC from Falco Data is a new 386SX-based machine which boasts a tiny footprint of 13.67 inches by 10 and is only 2.75 inches high.

The PC is said to feature zero wait-state memory, and peripheral functions are incorporated into the motherboard. The expansion ports have been designed to cope with local area networking, fax, modem and graphics cards. Each configuration comes with 1Mb of RAM, expandable to 2, 4, or 8Mb, a 3.5-inch 1.44Mb floppy



• The new Infinity Desktop PC.

drive and two 16-bit expansion slots as standard.

Prices range from £650 to £1,536 for the top end 40Mb hard disk colour monitor. ■

Protect yourself

London technology law firm Bird & Bird has produced a 12-page booklet for people creating, commissioning or wishing to acquire rights to software.

Practical Aspects of Software Protection contains straight forward advice on protecting software rights, without getting stuck in a legal jungle. It sum-

marises the various principles of software protection including commercial and technical considerations as well as copyright, contract, patent, confidentiality and criminal law. It also highlights precautions for those trying to protect software rights.

The booklet can be obtained free from Bird & Bird. Call 071-242 6681. ■

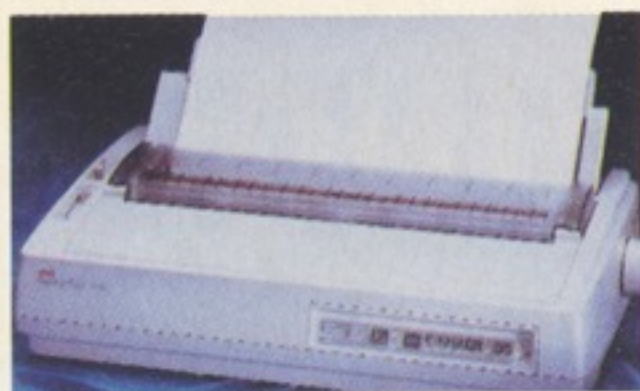
Apple moves into the East

Apple is hoping to join up with a number of Japanese electronics companies in an attempt to develop cheaper new products.

Sony, which has done business with the Californian company before, is said to be negotiating a

deal to manufacture a new Apple laptop. Details are thin on the ground although Apple boss, John Sculley, has indicated that a new notebook is on the way.

Apple and Toshiba may also be linking up to develop new optical disks. ■



• Pinwriter P30.

Your wide carriage awaits

NEC has launched what is said to be the first sub-£400 wide carriage 24-pin printer.

The Pinwriter P30 is "aimed at the bottom end of the market, but offers speeds and quality comparable to most mid to high-end printers", according to the Japanese company.

It performs at 216 characters per second in draft quality mode and 72 cps in high quality mode. Ten resident fonts are included as standard with 19 national character sets. A parallel interface is standard with optional serial interface.

Graphics resolution is 360 x 360 dots per inch and comes with an 8Kb buffer expandable to 16Kb. It costs £399. NEC's number is 081-993 8111. ■

Car thieves beware

A computer has been developed to beat car thieves. The system, known as Lo-Jack, is made up of a small receiver which can be hidden in a car. A central control computer will set the transmitter off when the car is stolen and will track its movements.

Lo-Jack is already used in USA and boasts a success rate of 95 per cent. West Midlands Police plan to try it out over here. ■

Show circuit confusion

The effects of the PC Show's collapse a year ago are still being felt with the one showpiece now being replaced by four events.

Last week EMAP announced plans for an autumn business show to rival Montbuild's fledgling Business Computing Exhibition (Express 100). EMAP already organises the Computer Entertainment Show, which was inaugurated three weeks ago to general satisfaction. EMAP's announcement causes some discomfort to both exhibitors and visitors - most will have to choose between one or the other.

Confusion is also setting in on the leisure computing exhibition circuit. EMAP's CES is being threatened by a 'trade only' show organised by Blenheim Database. Apparently, some industry bosses reckon they can do more business by leaving games players outside!

Previously, computer enthusiasts could visit the PCW Show (later called the PC Show) for all things new in computing. But that was dissolved a year ago after organisers VNU and Montbuild fell out. ■

Robots compete in their first Olympics

TIN MEN TURN ON THE CHARM

There was enough tin to keep a Heinz factory chugging along for a good fortnight. Fifty robots from 12 countries had gathered in Glasgow to compete for the ultimate accolade - winner of the first Robot Olympics.

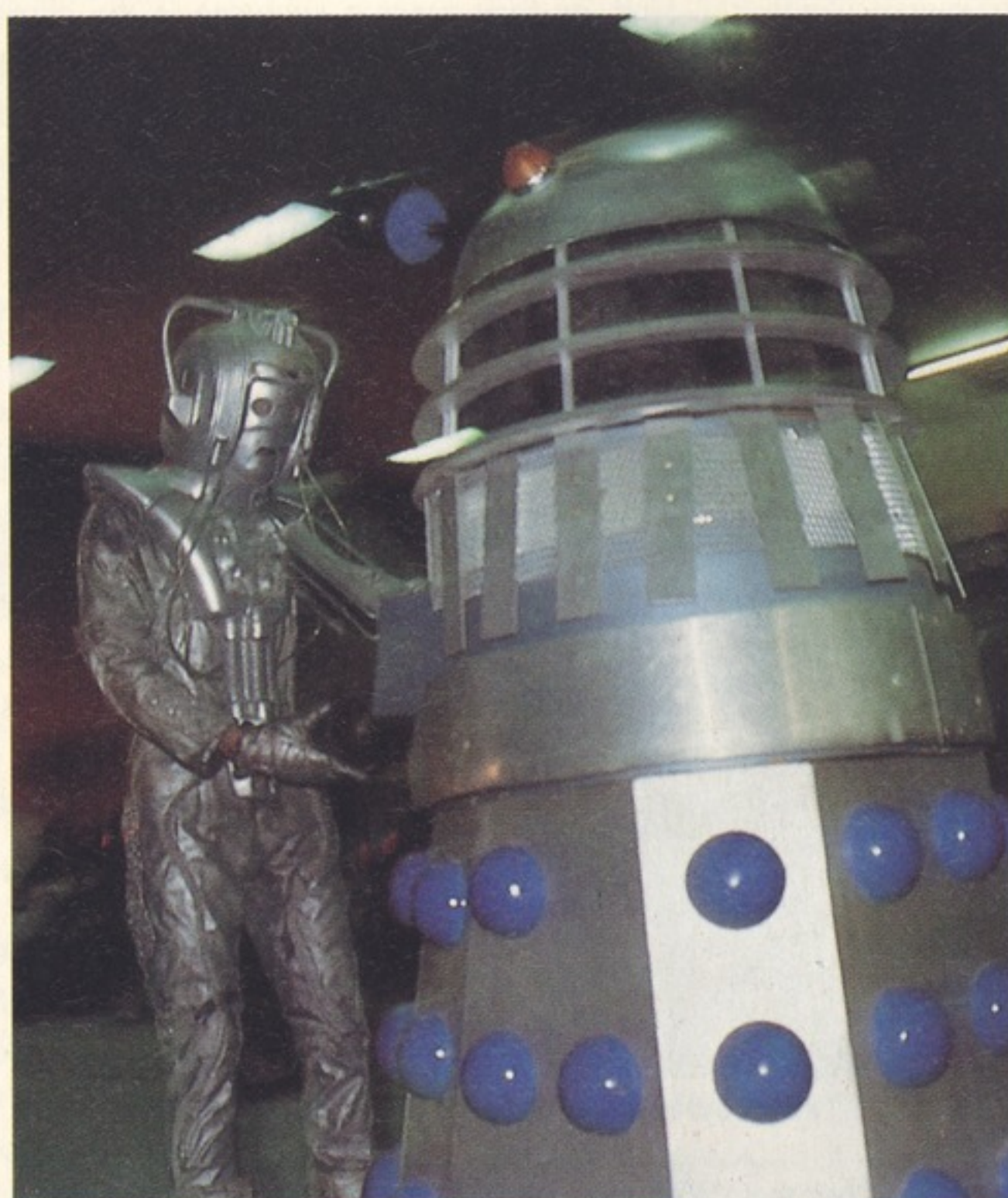
Some of the younger spectators had hoped to see R2D2 at the very least. Or maybe even something resembling Arnold Schwarzenegger in the final action scene of *The Terminator*. But it was not to be.

The winner, a Japanese creation called Yamabico, may not have the charm of a comic droid, but it can walk around obstacles without having to stop for laborious scanning and processing.

Walking wasn't the only event. Machines competed for best manipulator, best two legged racer, best javelin thrower, best wall follower and even best talker.

The winner of the last event was a home boy developed at the competition's base, the Turing Institute. Richard 1st is an artificial intelligence marvel which can zoom into objects it needs to view or pick up from where sounds are coming. And it has a broader vocabulary than your average Millwall supporter.

Another British effort, RoBug II, proved to be popular, but in the British Olympic spirit proved to be a gallant loser. It could climb



• A couple of Dr Who's metal pals at the opening of the Olympics.

up walls much quicker than the competition, but cutely, kept falling down.

Most of the entrants were amateur efforts or even admirable school projects. The high powered Massachusetts Institute of Technology showed Genghis (kind of like a pool player with

two piece cue and carrying case) and initially failed to get its six legged machine to budge. But in the end it delivered the goods, climbing all over obstacles and eventually winning a medal. ■

• For full details of this marvelous event turn to page 66.

Multimedia chip for the CD age

A chip for the CD age has been unveiled by Motorola. The 68340 is the latest addition to its 68000 range and is aimed at Compact Disc-Interactive (CDI) applications.

The chip makes use of CPU32 core processing technology. Not only does this make it downwardly compatible with other 68000 applications it is also said to offer a 200 per cent performance over the bottom range 68000 chip. It can also transfer data between hard disk and memory at 33Mbps (megabytes per second). ■

Prose fields Gulf scenes

The Gulf war, as opposed to crisis, may not yet (quite) be with us. But this needn't stop armchair Saddams missing out on what history may eventually have to offer.

Microprose, at the cutting edge of military simulations, is rumoured to be preparing its own offensive. *F-19 Stealth Fighter*, which already features scenes of bombing missions in Iran, may be updated to include an Iraqi scenario. However, the company refused to give further details.

More concrete is the latest version of *Universal Military Simulation*. This tactical military simulation, dealing with famous land battles such as D Day, is scheduled for release before Christmas. It will be a continental affair that will allow the inclusion of topics such as the Gulf Crisis on a strategic scale. No firm release details have been given yet. ■

Extra time for footie fans

Fans of the rapidly expanding range of *Kick Off* games are in for a treat in the very near future.

Kick Off II Extra Time is soon to be released. This disk is said to include features such as sloping pitches and control of the goalkeeper (perhaps now penalties won't be such a foregone conclusion).

On top of this is a feast of footballing facts and playable fun with the 20 Year disks. These contain the full team line-ups of what have been deemed England's top four first division clubs: Arsenal, Liverpool, Spurs and Manchester United. The disks have all the players from the past two decades - such luminaries as George Best, Denis Law, Martin Peters, Charlie George, Bob Wilson, Kenny Dalglish and Alec Stepney will be kicking around your computer in their original strips.

These two extensions add to an Anco stable which already includes *Kick Off*, *Kick Off Extra Time*, *Player Manager*, and *Kick Off II World Cup Italia '90*. At the time of going to press no release dates or prices were available.

Anco has received another accolade - it has been chosen as the official software for the Computer Football Association Challenge Cup. The quarter, semi and final of which will be played at the Computer Shopper Show on December 9.

So far some 5,000 players have signed up for the regional qualifiers. There will also be European interest with the Italian



• Kick Off: more of everything.

champ being paired with the eventual English winner. There is a chance that German and French players will also take part. ■

THE WEEK IN VIEW

Public domain libraries come in for a lot of stick for their pricing policy. Mike Goodman runs one of the most popular PD concerns and answers the charge of profiteering...

Every month or so the usual criticisms are levelled at the PD libraries. As the proprietor of Goodman Enterprises and the writer of the Atari ST *International Public Domain and Shareware Guide*, I receive many letters and telephone calls each month from satisfied customers all over the world. But for all the sceptics out there, I ask you to consider the following.

If you own a modem, don't mind paying large telephone bills, buy all the magazines with a cover disk, have many friends with STs that buy public domain and have the time to visit specialised user groups to swap disks, then a PD service is of less value to you as an individual. But what about the silent majority, the many thousands of satisfied ST users that use PD services?

Anyone who falls into the first category above (owns a modem etc), occasionally tends to forget that there is life outside computer circles; they spend most

nights messing about with the latest games and utilities, know their chosen machine inside out, and virtually all the people they know own a computer of some kind, so they assume everyone is the same. Believe me nothing could be further from the truth. Only about five per cent (if that) of ST users own a modem and I estimate 75 per cent of users overall have no serious contact with others (I suspect they don't want any, as computer talk to non enthusiasts is totally baffling). This majority are the users that the PD service is mainly for and they don't mind paying for 'the service' because that is what a good PD place sells – a good service, not the software.

Obviously the number of facilities a public library offers is reflected in the prices charged, but the fact remains – whatever cate-

gory of user you are and wherever you gather your PD from, it will always cost you something. ■



• Mike Goodman: PD will always cost something.

COMING NEXT THURSDAY

Sounding out synths

The best of the budget MIDI-equipped synthesisers on test

You can afford one!

A new range of Macintoshes put user friendly computing within reach

PLUS

- Hot news
- Front End
- Games Week
- The Console Zone
- Whole Wired World
 - Centrefold
 - Tech Tips
 - Circuit City
- Express On-line
- Express Mail
- The PD Column
- Columns for: Amiga, Arc, CPC, C64, PC, Spectrum, ST and introducing a new Macintosh column

AND

The chance to win the latest blockbusters from Virgin and part two of your Panasonic printer contest

**OUT ON
THE 18th**

Hey! Get in touch with us! *Express* is always on the look out for news leads and tip-offs – and we'll pay you for passing them on too!

Also, if you have any burning ideas for features or surveys then drop us a line – remember, we cover every aspect of computing.

Express Access

You can contact us directly on :

Voice : 0225 442244

Fax : 0225 446019

(All news leads and tip offs will be treated in strictest confidence)

Or you can leave E-Mail for us on :

CIX @ astorer

GOLD @ 84:TXT152

COMPUSERVE @ 100012, 1075

PRESTEL @ P McDonald

**COMPUTER
EXPRESS**

EDITOR • Andy Storer

DEPUTY EDITOR • Stuart Anderton

NEWS EDITOR • Colin Campbell

ART EDITOR • Amanda Cook

TECHNICAL EDITOR • Keith Pomfret

STAFF WRITER • Tim Smith

PRODUCTION EDITOR • Julie Tolley

SUB-EDITOR • Steve Coulter

CONTRIBUTORS:

Steve Carey • Robin Alway • Jason Holborn • Rod Lawton • Hadyn Fitz-Williams • Mark Higham • Adam Waring
Richard Frederick • Sean Masterson
Ken Coumarin • Steve Gold
ASSISTANT PUBLISHER • Jane Richardson

CIRCULATION DIRECTOR • Sue Hartley

ADVERTISEMENT MANAGER • Helen Kirkhope

AD EXECUTIVES:

Phil Davenport • Tim Partridge • Cheryl

Beesley • Jason Spice

AD PRODUCTION • Tracy O'Donnell

AD TYPESETTING • Terry Turner

PUBLISHER • Graeme Kidd

ABC audited circulation

January-June 1990:

21,251 copies per week

We regret we cannot enter into any personal correspondence. Technical enquiries should be addressed to Tech Tips at the address below.

While every care is taken in the preparation of *New Computer Express*, Future Publishing cannot be held responsible for the consequences of any errors that may occur.

© Future Publishing Ltd • 30 Monmouth Street, Bath BA1 2BW • Tel: 0225 442244 • Fax: 0225 446019 •

Subscriptions: The Old Barn, Somerton, Somerset (0458) 74011

• Printed by Redwood Press, Melksham, Wilts

• Distributed in UK and Eire by MMC Ltd (0483 211222), rest of world by Comag (0895 444055)

ATARI ST and AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!
CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW!!

520STE Power Pack £349.00

Inc. VAT and Next Day Delivery

Power Pack includes:

- ★ 520STE 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
- ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
- ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE
- ★ First BASIC and First Music Utility Software
- ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95
- ★ All leads, manuals PLUS MOUSE and free mains plug!

520STFM DISCOVERY PACK £279.00

NEW

NEW! fantastic value for money pack includes:

- ★ 520 STFM 512K memory keyboard with built in 1 megabyte double sided disk drive and TV modulator
- ★ Game Pack including OUTRUN, SPACE HARRIER, CARRIER COMMAND and BOMB JACK
- ★ UTILITY PROGRAMMES inc STOS GAME CREATOR, NEOCHROME painting package and FIRST BASIC programming language
- ★ ST tutorial programme and 'DISCOVER YOUR ST' beginners guide to the ST computer
- ★ PLUS MOUSE, MOUSE MAT, MANUALS, ALL LEADS, METACOMCO BASIC AND MAINS PLUG!

1040STE BUSINESS PACK £449.00

- ★ Includes the new 1 megabyte 1040STE keyboard plus over £200 worth of business software including K-WORD wordprocessing software, K-CALC spread sheet and K-DATA Database software Also includes Metacomco BASIC, Mouse Pad, all Leads, Manuals and Mouse.

MEGA 1 BUSINESS Pack £529.00

Features:

- ★ Separate Keyboard and System Unit
- ★ Inc. all software supplied with 1040 STE Business Pack
- ★ Blitter chip installed for faster graphics
 Inc SM124 Mono Monitor.....£628.00

ACCESSORIES

Quickshot II Turbo Joystick	£9.95	Branded Memorex 3.5" DSDD Disks	
Competition Pro 5000 Joystick	£13.95	Box of 10	£13.95
Competition Pro with Autofire	£14.95	Memorex Disk Box	
Konix Speedking Joystick.....	£11.95	For 40 3.5" Disks	£8.95
Red Mouse Mat with Amiga logo	£5.95	Amiga 1/2 Meg Expansion.....	£99.95
Plain blue Mouse Mat	£4.95	Control Centre Atari or Amiga	£44.95
Naksha Mouse for ST, Amiga or PC	£29.95		
Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad	£20.95		

PRINTERS

Star LC10 including interface lead for ST/Amiga.....	£169.00
Star LC10 colour including interface lead for ST/Amiga	£219.00
Star LC24-10 24 pin including lead for ST/Amiga	£249.00
Citizen 120D + NLQ including interface lead for ST/Amiga.....	£139.00
Citizen Swift 24 pin letter quality including lead for ST/Amiga.....	£309.00
Colour Version of Swift 24 pin	£349.00

AMIGA A500 SCREEN GEMS PACK featuring the exclusive new DIGISTAR pack! £399.00

NEW!

Inc. VAT and Next Day Delivery

SCREEN GEMS PACK includes:

- ★ Amiga A500 512K Keyboard with built-in 1 Megabyte double sided disk drive.
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ Amazing 4096 colour graphics and incredible Digital Stereo sound!
- ★ Deluxe Paint II painting package worth £70!
- ★ Outstanding new Shadow of the Beast II game with breathtaking graphics!
- ★ New Days of Thunder game based on the Stock Car racing film.
- ★ Back to the Future II game based on the film!
- ★ Night Breed adventure game
- ★ Amiga Basic, Amiga EXTRAS 1.3, Workbench 1.3 & Step by Step Tutorial
- ...and the incredible exclusive DIGISTAR pack including:
 10 blank disks and disk box, high quality mouse pad, joystick - PLUS £224.50 worth of extra games software comprising:

TITLE	SOFTWARE HOUSE	CATEGORY OF GAME	RRP
DATASTORM	VISIONARY DESIGN	ARCADE Space action fighting game	£19.95
DUNGEON QUEST	GAINSTAR	GRAPHIC ADVENTURE Exploration adventure with graphics	£24.95
E-MOTION	US GOLD	ARCADE Ball based puzzle game	£19.95
GRAND MONSTER SLAM	RAINBOW ARTS	SPORT SIMULATIONS Football contest using animated monsters	£19.95
KID GLOVES	MILLENNIUM	ARCADE Action adventure hack and slash game	£24.95
POWERPLAY	ARCANA	BOARD AND STRATEGY Graphical quiz game	£19.95
RVF HONDA	MICROSTYLE	ADVANCED SIMULATION Motorbike simulation	£24.95
SHUFFLEPUCK CAFE	DOMARK	ARCADE High tech air hockey game	£19.95
SOCCER	MICROPROSE	SPORTS SIMULATION Realistic soccer simulation game	£24.95
TOWER OF BABEL	FIREBIRD	ADVANCED SIMULATION Interactive strategy game with 3D graphics	£24.95

AMIGA 2000 IBM PC AND AMIGA COMPATIBLE TWO COMPUTERS FOR THE PRICE OF ONE! £1349 (Inc VAT and next day delivery) (£1173.04 exc. VAT)

FEATURES:

- ★ Separate keyboard & System Unit
- ★ 1 Megabyte RAM - expandable
- ★ Built-in 3.5 Disk Drive loads Amiga Software
- ★ Built-in 5.25 Disk Drive loads IBM Software
- ★ Built-in 20MB Hard Drive stores IBM & Amiga Software
- ★ 4096 Colours & Digital Stereo Sound
- ★ Runs IBM software with built-in XT Bridgeboard
- ★ IBM and Amiga Expansion Slots

EXTERNAL DISK DRIVES

Cumana 1 Megabyte Atari or Amiga	£89.95
NEC 1 Megabyte Atari or Amiga	£79.95
Atari SF314 1 Megabyte	£139.00
Amiga A1010 1 Megabyte	£99.95
Atari Megafile 30 Hard Disk	£439.00
New! Commodore A590 20 meg hard disk	£369.00
A590 Hard Disk + Memory Upgrade installed	Phone

MONITORS

Commodore Amiga A1084 stereo Monitor inc lead	£259.00
Atari SC1224 Colour Monitor inc lead	£259.00
Atari SM124 Mono Monitor including lead	£119.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga	£249.00

24 HOUR CREDIT CARD HOTLINE ☎ 0908 378008

To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to:
 Digicom Computer Services Ltd and send it with your order to the address below. Showroom open at the address below Mon-Sat 10.00am - 6.00pm.

DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES, MK2 2AZ.

All prices include VAT and delivery by courier

Licensed Credit Brokers * Written quotations available on request APR 34.5% Variable.



TCB TRACKER

Turn Your ST Into A Powerful Music Studio With The -TCB TRACKER-

The -TCB TRACKER- is a 4 channel music synthesizer, drum machine, and mixing studio that allows you to play back 4 different samples all at the same time in glorious stereo (STE only) without any special hardware. It will run on any ST and will automatically make use of any extra memory, disk drives and MIDI equipment that you have.

The -TCB TRACKER- uses special techniques to replay all 4 channels simultaneously at 10KHz to give crystal clear sound. Not only is the music clear, but it is also very loud. Music that is this clear and loud isn't normally achieved without using all the computers processor time. The -TCB TRACKER- will only use a maximum of 28% leaving plenty of time for the computer to do other things. This makes the -TCB TRACKER- perfect demo writers, professional programmers and for the person who just wants an easy to use music program.

-TCB TRACKER- FEATURES

- * 4 CHANNELS OF SAMPLED SOUND
 - * SIMPLE KEYBOARD ENTRY
 - * FULL MIDI COMPATIBILITY
- * TURNS YOUR ST INTO A 3 OCTAVE KEYBOARD
- * USES A MAXIMUM OF 28% PROCESSOR TIME
 - * STEREO SOUND ON THE STE
 - * AMIGA BASS
- * SIMPLE KEYBOARD SHORT CUTS
- * STORES UP TO 16 SAMPLES IN MEMORY
 - * POWERFUL VOLUME CONTROL
 - * TUNING OF SAMPLES
- * SIMPLE TO ADD TO YOUR OWN PROGRAMS
 - * OVER 20 CUT AND PASTE FUNCTIONS
 - * ON SCREEN HELP

MIDI Compatibility

If you own a MIDI keyboard, then using it with the -TCB TRACKER- is no problem. Simply select a channel, go to MIDI mode, press record and then start playing. The -TCB TRACKER- uses MIDI CLOCK for perfect timing.

MPH Support

MPH will be supporting the REGISTERED users of this product in every possible way. There will be extra disks of .MOD and .SPL files, a quarterly newsletter giving tips on how to get the most out of the programme and updates of the software, and finally, a monthly competition for the best piece of music created with the -TCB TRACKER-.

ORDER NOW FROM MPH FOR ONLY £39.95
Tel: 0603 503382



T
R
A
C
K
E
R

■ SIMM city

Look, I understand bus widths lolo, but let's face it, most *NCE* readers don't. They only know that when they buy a 1Mb Amstrad and want to upgrade to a 4Mb machine, they have to buy 4Mb of RAM. not 3 Mb as they might well imagine – 1 + 3 does not equal 4 in this case.

If lolo Davidson does not regard this as a con, then maybe he would be prepared to concede that at the very least the manufacturers/vendors should be obliged to accept the original 1Mb SIMM in part exchange.

And I have here a board where I can mix 256K and 1Mb SIMMs. Where 256K and 8 1Mb SIMMs equal 10Mb total.

One 4Mb SIMM still costs vastly more than four 1Mb SIMMs, so I don't think we're arguing the toss on that aspect... yet!

William Poel, Quarterdeck UK

■ Critical view

Here's my opinion on the recent TV programme, *Hyperland*.

Interactive television is going to play a major part in our lives, even those who shun technology are going to feel its impact. *Hyperland*, then, was a golden opportunity to reveal all then, in an educational but entertaining fashion without being patronising. Some hope!

I was bored rigid with this pretentious tosh. The show was an incoherent, rambling megabore. Ideas that are never clearly explained are offputting and confusing – seeing talking heads waffling technobabble must have made Joe Public switch off in droves. The speakers were so tedious they could have cleared a room quicker than an exploding bomb. Why oh why use a ludicrous Doctor Who... lending scientific credence, perhaps?

The content was so abysmal that the writer was obviously a world authority on self-important humbug! If producing computer shows is what the BBC want, ask someone who knows the subject – a Future Publishing journo, say.

For anyone connected with



Hyperland I say 'complete tripe – don't bother again'.

Martin Stephens, Basildon, Essex.

So you didn't like it then? Any more would-be TV critics fancy penning me a missive?

H F-W

■ Coupé confusion

As to the argument that the demise of the Plus 3 is bad news for the SAM Coupé, do you really think that people, given the choice of a tape loading 8-bit or a disk loading 8-bit are going to buy the tape loader in preference to the disk loader? Particularly when both will run almost all of the same software?

I was one of the people who upgraded from a 48K Spectrum to a Plus 3 purely because of the disk facility. I copy all the tape software I buy to disk via a Multiface purely for the convenience of quick, relatively quiet loading and really do not see people rejecting the SAM because the Plus 3 no longer exists – they don't even use the same size disk!

Furthermore, in these times of high interest rates and impending recession, I

EXPRESS MAIL

With your new and regular host, Haydn Fitz-Williams, the man with the fivers to give away...

Write and tell HFW what you think about anything under the Sun! Reach him at: *Express Mail, 30 Monmouth Street, Bath BA1 2BW.* Sorry, no personal replies, even with an SAE, as we're too busy writing the magazine.

cannot see the greater majority of new purchasers rejecting the SAM in favour of a 16-bit machine costing around £200 more. Or, for that matter, opting for a non-programmable console.

With regards to MGT, how many other software and hardware firms in the last ten years have been able to emerge from bankruptcy and continue trading? The reason for the bankruptcy, as I understand it, was that MGT were unable to get the product out into the shops last Christmas. It had nothing to do with Amstrad and MGT is not dependent on Amstrad for its sales in any way.

D Griffith, Hammersmith, London

I think you're missing the point a bit here, Mr G. While it is without doubt a clever piece of hardware, the SAM Coupé is not really set to be a soaraway success. It's a bit of a chicken and egg situation when it comes to launching new computers – people won't flock to buy a new computer unless there's a strong promise of a large quantity of software and other add-ons for their new toy. And such a marketplace, crammed full of innovative software and peripherals, will not grow around a computer until it

becomes popular.

The Spectrum took off quickly, and went from strength to strength as software houses, hardware manufacturers and magazines sprang into life to support it. Indeed, Miles Gordon Technology first came into being as a company creating innovative devices in support of the Spectrum.

After a seriously false start, the Coupé is far from dead yet – but it is only growing slowly. There's a very limited quantity of software available that takes advantage of the Coupé's powers, so for most people owning a Coupé means running Spectrum software. And there's insufficient impetus for the major developers to start working on Coupé-specific software – the potential market for the end product just isn't there. Similarly, no-one could set up and run a news-stand magazine dedicated to the Coupé without losing lots of money.

Given the revamped Amstrad CPC range and the likelihood of further price cuts at the 16-bit end of the hardware market, my prediction is that the Coupé is never going to become a mass-market, mass-appeal machine like the Spectrum, C64, CPC, Amiga or ST. (Cue

■ Mondo bondage?

I have been getting your magazine since it started and it has improved over the time. Your new 'format' is a real improvement, even if the price has gone up like petrol.

But, oh yes, the big BUT, do you have to have so many articles for the Amiga? Graphics, music, fractal landscapes, different types of hardware – you name it, there has been an article on it. Believe it or not, there are other machines which have the same sort of software and hardware. So please give the Amiga a rest.

Another request. Could you give me the address of the magazine *Mondo 2000* which appeared in your excellent article on virtual reality?

By the way, I have got an original idea for the 'my computer is better than yours' debate: My Atari Portfolio is better than your Amiga. So it doesn't have any graphics. At least I will be a better lover than any of the Amiga users!

Richard Blakeley, Portsmouth

I can see your point, Richard, but it's hardly our fault that the Amiga is a 'happening machine'. There's so much good Amiga stuff to report on at the moment, that we have little option but to give lots of coverage to the Amiga – but our Illustrious Editor has promised to try to widen the scope of some future articles to include other machines. Apart from the MSX, Oric, Memotech etc.

As to *Mondo 2000*, the address to use if you want to get a subscription is Fun City Mega Media, PO Box 10171, Berkeley, CA 94709-5171, USA. The magazine is published quarterly, by the way and has an American subscription price of \$24 for six issues, but you'll have to find out how much to add for airmail postage. Your newsagent might be able to order an import copy for you from a distributor like COMAG if you don't want to set up an airmail subscription direct.

Hmm. You'd have to be a pretty terrible lover in



• Improve your sex life with a Portfolio.

the first place if the Portfolio was what you needed to spruce up your sex life. An interesting twist on the MCIBTY debate though, and worth a fiver for making me chuckle. Anyone else out there care to tell me why their machine makes them better lovers?

MAIL SHORTS

howls of protest from Coupé owners across the land.)

And don't make the mistake of confusing bankruptcy with receivership. So far as I know, no-one has gone bankrupt over the SAM.

H F-W

MacFan

As both a personal feeling and one for the company I work for, the Macintosh Graphical User Interface simply has to be the best for productivity.

We do not pretend to be 'expert' users, but the Mac lets us pretend we are. In the context of DTP, the section I work in produces fairly complicated technical documents, so when we set out to computerise this, we decided that only the best would do.

This just happened to be Quark XPress, which, of course, only runs on the Macintosh platform.

By the way, on the 'Mines better than yours' front I run an Atari ST1024. My kids prefer the Apple portable that I bring home. I taught my seven year old to use the Mac in under an hour, and my eleven year old virtually taught himself.

Steve Switzer

Yup, it's a brilliant machine. And I can't wait to find out whether there's any substance to those rumours of price cuts in the Mac market - Apple could really have a runaway success on its hands if it could make the Mac as affordable as the PC. Still, it's worth mortgaging your home for a 11fx - even if you have to drive around in a tired Fiat Uno for the rest of your days as a result. 32-bit QuickDraw has to be seen in action to be believed.

H F-W

Boy racer

In response to Mr Clitheroe Lanes (*Express* 98 - is that really his name?), here are some real motor racing games - none of yer poxy *Out Run* clones. All these are on the PC but may be available in other formats.

Grand Prix Circuit (Accolade) - a couple of years old now, but still very playable - like *Revs* only with better graphics.

Ferrari Formula One (Electronic Arts) - very sophisticated techno-tweaks available, but sadly almost unplayable as the car stops dead when you put a wheel on the grass. Loads of features... shame really.

Indianapolis 500 (Electronic Arts) - proves that driving round in a circle is far more difficult than it looks. Very challenging, and don't drive into the walls...

The Cycles (Accolade) - if you can face bike racing, this is the biz. Plays really well, but maybe a bit too easy.

All we need now is a decent 'Jaguar Wins at Le Mans' game. Here's looking forward to *Days of Thunder*.

Mark McKergow, Redland, Bristol.

Careful with those furry dice, Eugene.

Anyone else with a top four or five games - of any type - might like to drop me a line, or better still, get in touch with Tim Smith and his Centrefold that lurks somewhere around the middle of this magazine.

As for Jaguar winning Le Mans - I was there. Last time it happened, anyway. And the year after. And I'll be there next year too.

H F-W

Amiga hater

With respect to the letter Protect and Survive in *Express* 98, the argument of corporate users dictating the removal of copy protection on Amiga Software is of no consequence. It will not even rear its head as the Amiga, unlike the PC and on occasion the ST, does not even assume an identity in any market other than leisure software.

One way of copy protecting Amiga software and one which would suit any other games machine is to remove the keyboard and disk drive and replace them with a cartridge slot, a joystick and start button and call it a console.

It appears to me that if someone wishes to use a computer for any serious applications they should buy a serious computer, and not a console in computer clothing.

I have owned an Amiga, a PC and an ST and found the Amiga the only one of the three quite laughable in terms of serious software. It is a parody of the computer industry - a £399 rolling demo of useless routines and user-unfriendliness dressed up in a coat of many HAM-fisted colours.

I Richardson, Stoke-on-Trent

And you must be a parody of an intelligent, unbiased, rational human being Mr Richardson. Before hordes of screaming Amiga owners declare nuclear war on Stoke, just let me say that you must have had your head in a bag if you can't see that the Amiga is supported by masses of serious software. Software for high-end DTP, video editing, music and graphics as well as a fair smattering of 'business' stuff.

Still, I liked that bit about 'HAM-fisted' colours. A clever put-down, that.

H F-W

Ten things

Express, since the first issue, has always been a magazine that I have both loved and hated! As you have just produced your hundredth issue, I thought I'd write and tell you the ten things that I have most loved and hated about my weekly fix.

Hates include:

- 1) Articles on how multimedia will change all of our lives
- 2) People who tell me to buy an Archimedes because they are the future. No thanks, I want a *now* machine - with bags of software in the High Street, fellow

owners living around the corner and shelves full of relevant magazines in W H Smith.

3) Folks who tell me to chuck my Amiga and get a PC because they are the standard. Yes, standard office equipment, like photocopiers and filing cabinets. Surely not the standard for the other 99 per cent of things like home use, school use, desktop video, desktop music or even desktop publishing.

4) The now defunct Buyers Guide in Shopping Express for repeatedly down-marking Amiga *Protext* 4 for not having pull-down menus. My version does, honest guv.

5) Reports from computer shows. These are so short and lacking in detail that you must spend all week at the bar.

Fave raves are

1) Those Sun-like headlines; the name of a computer followed by words like sensation, shocker etc.

2) That default picture of Alan Sugar. It cracks me up every time.

3) The witty and informative micro biographies and learning curve articles in earlier issues.

4) New Computer Excess

5) The wicked find-the-long-word competitions.

Here's to the next hundred.

Chris Longley, Houghton Le Spring, Tyne and Wear

Thanks for your input Chris. Much as I'd like to insult you by shoving 100 fivers your way in celebration of our anniversary, I'll minimise the insult by sending you two fivers - that's a pound for each point on your list.

Maybe I've set a dangerous precedent here, and will now be flooded by people's lists of 'Ten things'? Alright then. A tenner for the person who sends in the most amusing 'Ten Things You Didn't Know About The MSX Computer'.

H F-W

Insulting and cheap

That picture in Centrefold: sexist? That'll be answered by what goes in that place next week. Do I mind? It isn't about computing, so yes, I do mind.

I'll try two more issues to give it a fair running-in time, but if this is to be the format from now on, I won't be getting *Express* thereafter.

Specifics: It's gone brash. Quiet humour has given way to forced jokery. The advertising now seems oppressively intrusive. I don't like the increased emphasis on games (since they are of no interest at all). If people wrote to *Express* Mail, it was because they wanted to (and the interest showed); shoving fivers at them is insulting and looks cheap.

Tony Kelly, Llanwrda, Dyfed

Well I won't insult you by shoving a fiver your way then...

H F-W

Old money

...just got the new *New Computer Express* - Excellent. Great value for 70p (14 shillings). Whatever happened to money? And What'll *Pop* do, now it's even more Tom Tit up against your mag?

D Magill, Cheltenham, Gloucs

It's got consistently smaller, that's what's happened to money. We've now got a Monopoly money fiver, a silly little 5p piece and a new miniaturised 10p on the way. In ten years' time you'll need tweezers to deal with small change and we'll all be using 64-bit computers.

As to *Popular Computing Weekly*, it's already done it. Completely Brown Bread...

H F-W

Rude name III

...a few years back, I believe ICL created a disk system called M.E.D.S - short for Multiple Exchangeable Disk System. All went well until someone pointed out that in Sweden, Meds is the name for Tampax!

Unsurprisingly, ICL changed the name to E.M.D.S - Exchangeable Multi Disk System. And I was told that by the ex-head of ICL's programming division, no less.

John Earls, Swansea

And a fiver is duly on its way. Any more unfortunate names still out there?

Brain dead

...maybe the reason why the Spectrum Plus3 isn't selling is because it's been withdrawn, axed?!

E Software, Lewisham

You sound just like the kind of guy who should head up a marketing intelligence department on a sewage farm.

Bad jokes

Q) Why do MSX owners whinge?

A) Because they deserve to.

Q) What do you call an MSX owner?

A) Plonker

Q) How many MSX owners does it take to change a light bulb

A) Who cares? And anyway you can't buy light bulbs like that any more unless you join a user group.

Martyn Banks, London

Er yes. Well that should have any MSX owners who are still reading this magazine well pleased.

24-HOUR SERVICE
OPEN: MON - FRI 9.00 - 5.00
SATURDAY 10.00 - 2.00

Business Technology Centre

PHONE OR FAX: 0282 831900

SEIKOSHA SL92
 24 PIN 42K BUFFER 9 FONTS
£299 INCLUDES ON-SITE WARRANTY

DOT MATRIX PRINTERS

9 PIN 80 COLUMN	draft/nlq	£
STAR LC-10	144/36	125
STAR LC-10 colour	144/36	166
STAR LC-10 colour comm 64	144/36	166
CITIZEN 120D PLUS	120/25	105
CITIZEN 120D PLUS comm 64	120/25	105
CITIZEN PRODOT 9	300/60	265
SEIKOSHA SP2000 (21k buffer)	200/40	199*
SEIKOSHA MP1350	300/50	359*
PANASONIC KXP 1180	192/36	139
MAN. TALLY MT 81	130/26	104
OLIVETTI DM 100SPR	200/30	119*
EPSON LX 400	180/30	135

9 PIN 136 COLUMN		
STAR LC-15	180/45	255
CITIZEN PRODOT 9 x	300/60	345
PANASONIC KXP 1592	216/45	255
SEIKOSHA MP5350	300/50	499*

24 PIN 80 COLUMN		
STAR LC24-10	170/57	195
CITIZEN SWIFT 24	192/64	239
CITIZEN PRODOT 24	200/60	369
PANASONIC KXP 1124	192/63	219
SEIKOSHA SL92 (42k buffer)	240/80	299*

24 PIN 136 COLUMN		
STAR LCX24-15	200/67	325
STAR XB24-15	240/80	510*

*ALL DOT MATRIX PRINTERS MARKED WITH A * INCLUDE A ONE YEAR ON-SITE MAINTENANCE CONTRACT.

A ONE YEAR ON-SITE MAINTENANCE CONTRACT IS ALSO AVAILABLE FOR MOST OTHER DOT MATRIX PRINTERS - ONLY £16.

A FULL RANGE OF SHEET FEEDERS, TRACTORS, ACCESSORIES AND CONSUMABLES ARE ALSO AVAILABLE FROM STOCK - CALL FOR DETAILS.

SWIFT 24 COLOUR
 24 PIN PRINTER INC. COLOUR KIT
£269

TERMS

ALL PRICES EXCLUDE VAT. PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE. CALL TO CONFIRM BEFORE ORDERING. STRICTLY CASH WITH ORDER. ACCESS, VISA AND AMERICAN EXPRESS WELCOME. POSTAL ORDERS, CHEQUES AND BANKERS DRAFTS ACCEPTED. OFFICIAL ORDERS FROM EDUCATIONAL AND GOVERNMENT ESTABLISHMENTS, CORPORATES AND PLC'S WELCOME.

DELIVERY

ALL GOODS NORMALLY DESPATCHED WITHIN 24 HOURS FROM RECEIPT OF CLEARED PAYMENT - subject to stock availability.

PC's AND LASERS	£15.00	NEXT DAY DELIVERY
OTHER LARGE ITEMS	£10.00	NEXT DAY DELIVERY
SMALL ITEMS	£5.00	4 DAY DELIVERY

WARRANTY

ALL GOODS CARRY MANUFACTURERS WARRANTIES. ON-SITE WARRANTY AVAILABLE ON MOST DOT MATRIX PRINTERS AND PC's - CALL FOR DETAILS. TECHNICAL SUPPORT AVAILABLE. E. & O.E. Goods not offered on trial basis. Goods are offered for sale subject to our standard terms and conditions of sale - available on request. WE STOCK MANY MORE PRODUCTS - CALL FOR DETAILS. LARGE STOCKS OF FLOPPY DISKS AND RIBBONS CARRIED.

NON-IMPACT PRINTERS

		£
SEIKOSHA	OP105 LED (desktop size, takes legal paper)	1299*
STAR	LASER 8	1179*
STAR	LASER 8 DUAL BIN	1599*
H. PACKARD	LASERJET II	1199*
H. PACKARD	LASERJET III	1299*
OLIVETTI	PG 306	899*
CANON	BJ130 INK JET	519

ONE YEAR ON-SITE MAINTENANCE IS INCLUDED IN THE PRICE OF ALL THE ABOVE PRINTERS MARKED WITH A *.

A FULL RANGE OF TONERS, FONTS, MEMORY CARTRIDGES, INK CARTRIDGES AND OTHER ACCESSORIES ARE STOCKED - PLEASE CALL FOR FURTHER DETAILS.

OLIVETTI PG306
 LASER PRINTER
£899 INCLUDES ON-SITE WARRANTY

PLOTTERS AND SCANNERS

HITACHI	681	A4/A3 PLOTTER	520
HITACHI	674	A4/A1 PLOTTER	2149*
(includes one year on-site warranty)			
PANASONIC	FX-RS505	SCANNER	919
(with I/F card, cables, IMAGE AND OCR software)			
NISCAN	HAND SCANNER		139
NISCAN	OCR software		189

DRIVES

CITIZEN	OSDD 05A-WD	3.5" 720K in 5.25" KIT	59
CITIZEN	OSDA 39C-WD	3.5" 1.44mb in 5.25" KIT	69
CITIZEN	OSD 76A-WD	3.5" 720K AMSTRAD KIT	59
INTERNAL	5.25" 1.2mb		59
INTERNAL	5.25" 360K		69
JAVELIN	HC20	20mb XT HARD CARD	185
JAVELIN	HC30	30mb XT HARD CARD	199
FILECARD	HC40	40mb AT HARD CARD	229
KYOCERA	KC 20B(s)	20mb XT/AT DRIVE, 3.5"	138
KYOCERA	KC 30B(s)	30mb XT/AT DRIVE, 3.5"	158
KYOCERA	FRAME	5.25" kit for 3.5" hard drives	5

DRIVE CONTROLLERS AVAILABLE - CALL FOR DETAILS.

CABLES AND ACCESSORIES

PRINTER CABLE	1.8 metre	8
PRINTER CABLE	3.0 metre	9
SERIAL CABLE	1.8 metre	10
T SWITCH	2 way serial	18
T SWITCH	2 way parallel	18
T SWITCH	2 way serial crossover	25
T SWITCH	2 way parallel crossover	25
BUFFER	64k in-line	79

ACORN A3000
 1Mb RAM KIT
£89

COMPUTERS

ALL OUR COMPUTERS INCLUDE A MONITOR.

COMMODORE

ALL MODELS INCLUDE ONE YEAR ON-SITE MAINTENANCE

		MONO	CGA	VGA MONO	VGA COLOUR
		£	£	£	£
PC 10	SD	485	615	635	725
PC 10	DD	535	665	685	775
PC 20	HD20	675	795	845	945
PC 30	HD20			967	1128
PC 40	HD40			1229	1379

COMMODORE SPECIAL
 PC 10SD INC 40MB DRIVE & MONITOR
 INCLUDES ON-SITE WARRANTY
 MONO CGA MONO COLOUR
 VGA VGA
£699 £829 £849 £949

SAMSUNG

ALL MODELS INCLUDE ONE YEAR ON-SITE MAINTENANCE

		MONO	VGA MONO	VGA COLOUR
		£	£	£
SPC 3000 SD		483	589	789
SPC 3000 DD		569	659	859
SPC 3000 HD20		739	839	1039
SPC 6512 DD			919	1119
SPC 6512 DD HD40			1109	1309

HYUNDAI

		MONO	EGA	VGA MONO	VGA COLOUR
		£	£	£	£
16TE SD		419	699		
16TE DD		459	759		
16TE HD30		619	919		
286x SD				639	819
286x HD40				939	1119

HYUNDAI 16TE
£419 MONO XT AND MONITOR
HYUNDAI 286X SD
£1099 HD 40 AND VGA MONITOR

PORTABLES

SHARP	4602	DD	789
SHARP	5541	286 HD40	2099
SAMSUNG	S5200	286 HD32	1707*
(includes on-site maintenance)			

NOW IN STOCK
 SHARP 8041 & 8081 386 LAPTOPS - CALL FOR PRICES.

SHARP 5541
£2099 HD 40 286 LAPTOP

THIS IS ONLY A SMALL SELECTION OF THE PC's THAT WE SELL - CALL FOR FURTHER DETAILS.

PHILIPS CM9053
EGA MONITOR
£249 INCLUDES ON-SITE WARRANTY

MONITORS

			Price £
MONO	HYUNDAI	HMM1200	12" 65
MONO	PHILIPS	BM 7513	12" 69
MONO	PHILIPS	BM 7913 FST	12" 80
MONO	SAMSUNG	MA 2671	12" 81
MONO VGA	PHILIPS	BM 7749 FST	12" 107
MONO VGA	SAMSUNG	ML 2611	12" 81
MONO VGA	SAMSUNG	ML 4571	12" 95
MONO A4	SAMSUNG	MP 5671	A4 634
(includes card and software)			
CGA	PHILIPS	CM 8833	14" 199
EGA	PHILIPS	CM 9053	14" 249
EGA	PHILIPS	CM 9073	14" 289
EGA	SAMSUNG	CM 4551	14" 281
VGA	PHILIPS	3CM 9809	14" 325
VGA	SAMSUNG	CJ 4581	14" 281
MULTISYNC	SAMSUNG	CT 4581	14" 340

ALL MONITORS INCLUDE ON-SITE WARRANTY EXCLUDING THE HYUNDAI HMM 1200.

MDA/CGA CARD with PRINTER PORT	45
MDA/CGA/EGA CARD	99
VGA CARD	129

UPGRADES AND ENHANCEMENTS

MDM2400 PC CARD MODEM
£135 INCLUDING SOFTWARE

AKHTER	MDM 2400 PC CARD MODEM	135
FAXTEL	FAX SWITCH (auto switches calls to fax or phone)	69
KEYBOARD 84	84 KEY UK LAYOUT XT	41
KEYBOARD 102	102 KEY UK LAYOUT XT/AT	52
RAM CARD	576K - XT	27
RAM CARD	2Mb - specify XT or AT	93
SERIAL MOUSE	includes DR Halo III software	38
MULTI I/O CARD	XT - RS232/printer/clock/games/floppy	54
I/O CARD	AT - RS232/Printer	54
I/O CARD	XT RS232	19
UPS	250W	199

MEMORY - call for prices of SIMM's, SIP's and DRAM's.

SUPERDEALS

SCHNEIDER	220 AT MONO PC SYSTEM	909
SCHNEIDER	20Mb HARD DRIVE KIT	199
HYUNDAI	360K DISK DRIVE	45
YE DATA	720K DISK DRIVE	49
SHARP	JX 9300 LASER PRINTER	949
SHARP	JX 720 INK JET PRINTER	649
MICROVITEC	1431 DS4 - BBC MONITOR	169
MICROVITEC	1451 MS4 - BBC MONITOR (metal case)	229
MICROVITEC	1456 DL2 - NIMBUS MONITOR	249
MIRACOM	COURIER HST MODEM 9600/V22bis/V22/V21/V23 & MNP	539
IBM	MODEL 30-021	849
IBM	MODEL 50-061	1599

WE ARE AN ACORN EDUCATIONAL DEALER - CALL FOR PRICES.

Business Technology Centre

HOLE HOUSE FARM, BURNLEY RD, CLIVIGER, LANCS., BB11 3RF
 Tel. & Fax: 0282 831900 (24 HOURS)



MONTY PYTHON'S FLYING CIRCUS

OUT
NOW

IT'S A
GOOD GAME

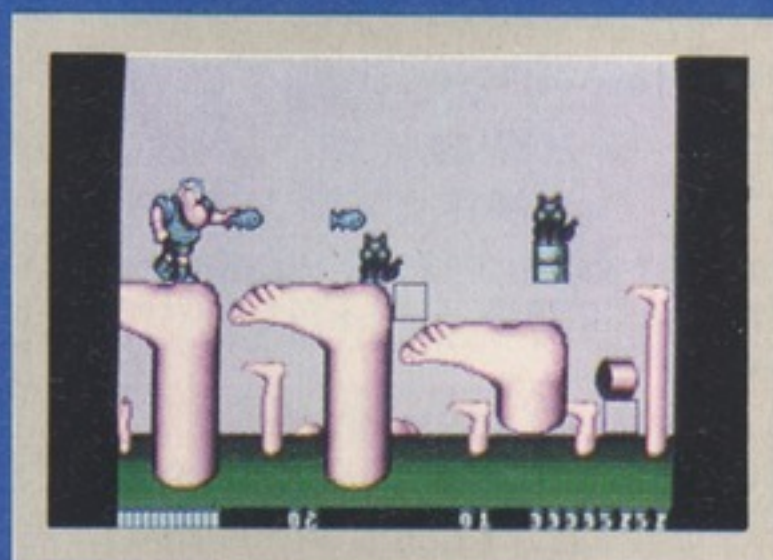
THE
COMPUTER
GAME

NO IT'S
NOT

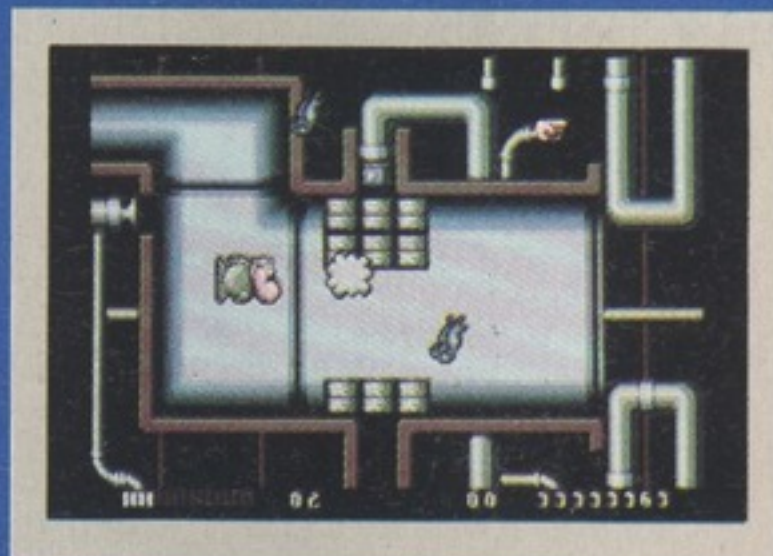
YES
IT IS!

"What we have here
is a **BRILLIANTLY**
ORIGINAL and
witty interpretation
of the Python
Theme". *Zero* 89%

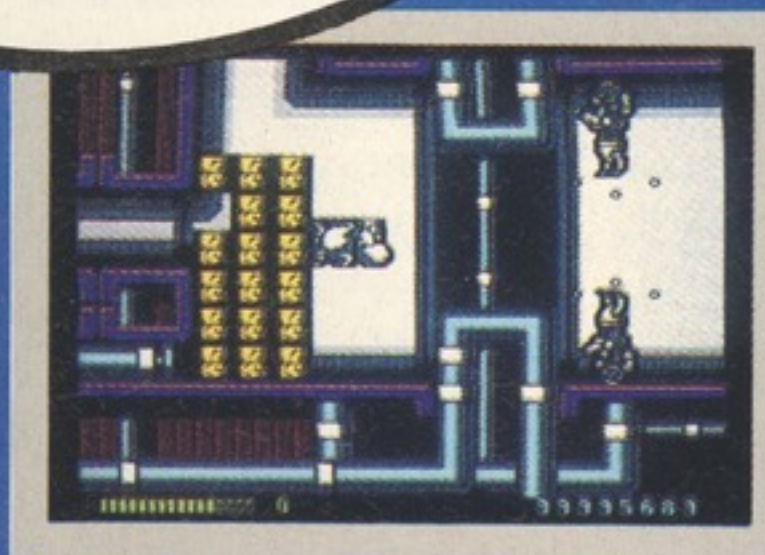
"One of the tastiest
slices of alternative
arcade action since
Venezuelan Beaver
Cheese".
The One 85%



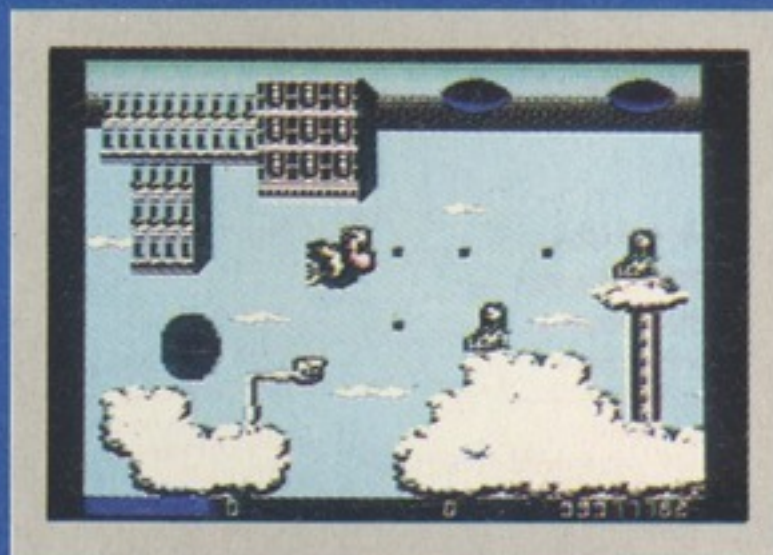
ATARI ST



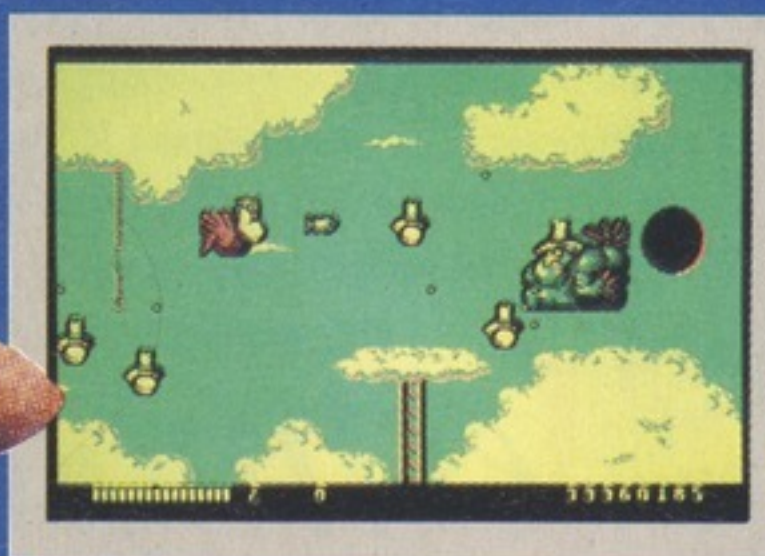
AMIGA



SPECTRUM



COMMODORE 64



IBM PC



AMSTRAD



© Python Productions 1990
© Virgin Mastertronic Limited, 16 Portland Road, London, W11 4LA

UT
OW

New TOS warning

Notebook wars

Mac ROMs

shortage

The TT latest

Flash extra

Portable

ST news

ALL IN WHOLE WIRED WORLD ON PAGE 32

SHOPPING EXPRESS

THE VALUE-PACKED GUIDE TO YOUR MACHINE AND MORE

CONTENTS

AMIGA.....	18
AMOS under threat	
ARCHIMEDES.....	19
Serious DTP to be done	
CPC.....	20
Check out Rick Dangerous II	
C64.....	22
A new operating system	
PC.....	23
Speeding up searches	
Spectrum.....	24
The Plus 3 remembered	
ST.....	25
Calamus bundle rumour	
The PD Column.....	30
The best in free software	
Whole Wired World.....	32
Steve Gold at large	
Express On-line.....	36
The weekly bulletin board and user group guide	
Circuit City.....	39
Marrying a CPC monitor to a 16-bit	
Centrefold.....	43
Our greatest fears revealed	
Tech Tips.....	43
Advice on your problems	

FREE! Reader Ads Order Form

PLEASE TICK THE CATEGORY YOU WANT YOUR AD TO GO IN:

- | | | | |
|--|--|--|-----------------------------------|
| <input type="checkbox"/> HELP OFFERED | <input type="checkbox"/> GOODS WANTED | <input type="checkbox"/> BUGS DISCOVERED | <input type="checkbox"/> EVENTS |
| <input type="checkbox"/> SERVICES | <input type="checkbox"/> VIRUS WARNING | <input type="checkbox"/> FOR SALE | <input type="checkbox"/> PERSONAL |
| <input type="checkbox"/> ANNOUNCEMENTS | <input type="checkbox"/> MINI-TIPS | | |

NAME _____ TEL: _____

ADDRESS _____

WRITE YOUR FREE AD HERE

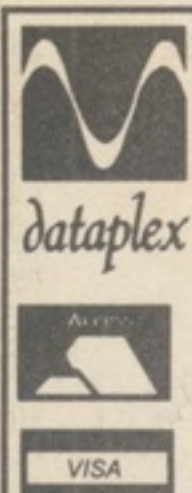
Send your reader ads to:
SHOPPING EXPRESS READER ADS,
30 MONMOUTH STREET, BATH BA1 2BW

Terms and conditions

- Sorry, NO trade ads. All reader ads must be from private individuals
- We cannot vouch for the quality of goods and/or services offered in this section. all ads are accepted in good faith.
- We reserve the right to amend or refuse reader ads at our discretion
- No pirated software may be sold through these columns. Any reader being offered non-originals should contact us
- We cannot guarantee that reader ads will appear in particular issues of Express
- The following declaration should be signed:

My advertisement conforms to the terms above and is legal, decent, honest and truthful

Signed _____



DATAPEX COMPUTERS LTD.

129 Bath Road, 19 High Street
Slough, Swindon,
Berkshire, Wiltshire
SL1 3UW

Tel: 0753 35557 Tel: 0793 488448

SHOWROOM
open:
Mon - Fri
9.30 - 5.30
Saturday
9.30 - 4.30
MAILORDER
Consumables
£1.50
Hardware
£8.00
Prices
excluding VAT

AMIGA A500 HARDWARE

Amiga A500 Batman Pack
+ free box of disks£317
Amiga A500 Flight of Fantasy +
box of disks£317
Amiga A500 Screen Gems
Packs + free disks£317

SPECIAL OFFER

Amiga A500 1Mb Pack -Choose
any Amiga A500 from above and
we will give you 512K RAM +
clock, mouse mat at only....£355
Amiga Class of 90's.....£439

ATARI COMPUTERS

Atari 520SM discovery pack
includes 4 games£240
Atari 520 STE Power Pack
includes 20 games with
joystick.....£310
Atari 520 STE Turbo Pack
includes basic STOS and 7
games.....£310
Atari 1040 STE extra pack
includes ST Words, ST Calc, ST
Basic, ST Graphics, Hyper-
Paint, STOS, 1st Basic, Print
Game.....£399

AMIGA/ATARI DRIVES

1 Meg 3.5" internal.....£55
1 Meg 3.5" external.....£65
1 Meg 5.25" external.....£99

ACCESSORIES

512K Ram + clock£45
Joystick.....£10
10 Blank disks in library box.....£6
Mouse Mat.....£3
TV Modulator.....£15
Naksha Mouse.....£32

MONITORS

Philips CM8833 - Colour Monitor
+ leads only£189

PRINTERS

Star LC10 Mono£135
Star LC10 II£159
Star LC10 Colour.....£168
Star LC2410 + lead.....£199
Panasonic KXP1124+ lead....£199
Panasonic KXP1624.....£329
Citizen Swift 24 + Colour
Upgrade.....£265
Citizen 120D +£119
Citizen Swift 9 + Colour
Upgrade.....£185

RIBBONS

PLEASE CALL FOR PRICES



AMOS UNDER THREAT

Mandarin's AMOS is generally regarded as the BASIC language for the Amiga. No other language provides the kind of support for the Amiga's unique capabilities that AMOS provides. But now it seems that AMOS has finally got a competitor - Blitz BASIC has arrived.

Designed by Black Box Software in the States, Blitz BASIC offers the same level of control over the Amiga's hardware as AMOS, but claims to run considerably faster, making it ideal for producing heavily graphic-intensive applications such as games. However, unlike AMOS, Blitz isn't just an interpreter. The package comes complete with a lightning-fast compiler that can generate ultra-fast object code at a rate of 6,500 lines per minute. Black Box claims that Blitz-compiled applications run faster than those written in languages such as 'C', yet it is so simple that even novice Amiga users can produce spectacular results.

The language itself provides direct support for IFF pictures, brushes, ANIM brushes (such as those produced by DPaint 3) and sound samples. You can open dual playfield, HAM and extra half-brite screens, take direct control over hardware sprites, the audio, blitter and copper hardware. An all-new queue system makes programming the blitter simplicity itself. You can open an unlimited number of screens in different resolutions, smooth-scroll screens, double buffer screens for flicker-free animations, run sub routines under vertical interrupt, plus a whole lot more besides. Black Box has rewritten the Amiga libraries, often making them at least five times faster than their kickstart counterparts. So far, no UK distributor has been appointed to handle BlitzBASIC, but I'm they'll be queuing up for this one. As soon as I receive my copy, I'll be bringing you a full review.

PHOTON 3 UPDATE

More news is starting to come through concerning Microlussions' Photon Paint 3. Although the specification has not been finalised, it seems that the program is going to be pretty spectacular. According to a spokesman at Microlussions, the program is being aimed squarely at Electronic Arts' Deluxe Paint 3. "We're not just gunning for DPaint 3, we intend gunning it down", the spokesman went on to say. "But Photon Paint's a HAM paint package!" I hear you shout. Well, according to Microlussions, the program has been totally rewritten and it now supports all Amiga screen modes, not just HAM. "We've included everything that DPaint can do, plus a whole lot more besides. When this program arrives, it's going to kill DPaint in its tracks", our spokesman added. Unfortunately, version 3 of Photon Paint isn't due until at least January of next year, but I'll bring you more details as soon as I get them.

HARD FACTS

Built-in hard drives for the A2000 are no big deal, but now A500 owners can

also get in on the act. Already Gigatron in Germany, the company which caused so much excitement with its portable Amiga project, has announced that it plans to release a built-in 20Mb drive for the 500 very soon.

The micro-sized drive is housed on a single PCB that connects to the A500 via the Amiga's memory expansion slot (the one hidden underneath your machine). The device was last seen up and running at the May Ami-Expo show in Basel, Switzerland. Nearer to home, details have been leaked concerning a similar device being developed by Cumana, a company which has been taking the Amiga market by storm just recently with its range of add-ons. Cumana's little device consists of a 512K RAM expansion board with built-in hard drive controller. Just like Gigatron's unit, the Cumana card fits into the RAM expansion slot underneath the 500. Using a ribbon cable, any standard ST506 series hard drive can be connected to the Amiga.

These drives are now being sold very cheaply, therefore Amiga users will be able to add a hard drive to their system very cheaply. Although the price is still not finalised, Cumana hopes to sell the card for a very reasonable £120. For more, give it a bell on 0483 503121

A3000 NEWS

The Mac's got 'em. The PC's got 'em. But the Amiga A3000 doesn't. What am I wibbling on about? High density drives, that's what. Rumour has it that Commodore may soon change the 3.5-inch drives currently built into the A3000 in favour of a high density unit. Although 880K sounds pretty good to most of us, these high density drives will allow the A3000 to store up to 1.4Mb of data onto a single floppy disk. And of course, they're totally compatible with current Amiga drives. If such a device does become available, you can bet that Commodore will also make the drives available to the rest of us in both external and internal format.

On the subject of making gadgetry for the A3000 available to us mere minions, it seems that Commodore plans to release the A3000 display enhancer hardware as a plug-in card for the A2000. When used in conjunction with a multi-sync monitor, this little whizzo device de-interlaces screens, therefore removing the old eye-straining flicker from high resolution displays. It is believed already that MicroWay - the company which produces the Flicker Fixer card for the A500 and A2000 - has complained to Commodore over its plans to release the said card. MicroWay claims that such a release could kill their product (you'd better believe it).

DYNAMIC PAINT PACKAGE

When NewTek released version 4 of its acclaimed video digitiser, it set new standards in Amiga graphics. With its all-new dynamic hi-res graphics mode, users were able to produce high resolution graphics with up to 4,096 colours on-screen simultaneously.

DISKS DISKS DISKS DISKS DISKS

SPECIAL OFFERS LIMITED PERIOD ONLY

GENUINE 100% CERTIFIED SONY DISKS

QUANTITY	10	25	50	100
3 1/2" DS/DD 135tpi	45p	44p	43p	41p

3 1/2" Coloured DS/HD 2mb SPECIAL OFFER 80p each
(minimum quantity 10 disks)

3 1/2" DS/DD 135tpi COLOURED DISKS 45p each
(minimum quantity 10 disks)

BANX BOXES

Lockable stackable 3 1/2" storage boxes holds over 70 disks
£9.50 each. £8.00 each for two or more boxes

SPECIAL UNREPEATABLE LIMITED OFFER

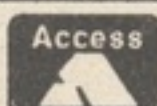
5 1/4" grey library case holds 10 disks - 60p each

All the above disks come with labels V.A.T included. Please add £2.50 postage & packaging £10.00 next day delivery (UK only). To take advantage of the above special offers call our **HOTLINE** now on **0784 451011** DON'T DELAY, OFFER ONLY AVAILABLE WHILE STOCKS LAST. When ordering by phone please quote NCE/MV or post your order with cheque/PO to:

MediaVALUE,
NORTHUMBERLAND
HOUSE, DEPT NCE/MV,
DRAKE AVE, STAINES,
MIDDLESEX TW18 2AP.
TEL NO 0784 466744 FAX NO 0784 450845 E & O.E

**WE OFFER A NO QUIBBLE
REPLACEMENT OR MONEY
BACK GUARANTEE**

VISA



Unfortunately, dynamic hi-res images proved to be totally incompatible with everything but NewTek's own *DigiPaint* 3 system. However, to the rescue of *DigiView* 4 users comes an American company called Lake Side Logic. Lake Side has beaten even NewTek to the post with the very first paint package to work in Dynamic Hi-Res.

With *MacroPaint*, you can finally touch up Dynamic Hi-Res images without having to mess around with super bitmaps.

Rumour has it that Lake Side has also signed a deal with Pixar, the high-end graphics workstation people, to produce an Amiga version of the *Renderman* solid modelling software. *Renderman* is currently only available for powerful graphics workstations

costing many tens of thousands of pounds.

AN OBITUARY

It was with great sadness that I recently heard the news of the passing away of Rob Peck, an man of which we all, as Amiga users, owe a great debt of gratitude. Rob, an engineer, programmer and author, headed the Amiga documentation team during the early LosGatos days. He was responsible for numerous computer manuals and reference guides, including the *Amiga Hardware Reference Manual* and the *Amiga ROM Kernel Manual*. I'm sure that, without Rob's effort, the Amiga would not have achieved the success it is now enjoying.

Jason Holborn

Archimedes

SERIOUS STUFF

The Acorn world has a rather earnest look about it at times, when the word 'serious' often gets given capital letters. But then why not. No-one can really afford an Arc 'just' to play games. So after the games news of last month, and in view of the business computing exhibition coverage last week, let's take a look down the business aisle of last month's *Acorn User* show.

I spoke to several international ARM dealers at the show, who distribute Acorn machines in various European countries through Lindis International. "I've seen several products which are truly world-class," volunteered one (I can't remember whether it was the Dane or the Swede), and he singled out the A540, the Laser Direct, *Impression* 2 and *Interdictor* as worthy of the accolade.

AND THEN THERE WERE FOUR?

Or five perhaps. The running theme of the year has certainly been the steady growth of Archimedes DTP. *Desktop Publisher* and *Impression* are already well-established in the field, but the newcomers *Ovation* and *Tempest* made a splash along with two updated versions of *Impression*. Acorn's 1989 release *Desktop Publisher* now looks a little lacklustre, but at least it gave every other company something to aim at. Computer Concepts' *Impression*, a bonnie nine months old, has split in two: *Impression* 2 and *Impression Junior*.

The main innovation of release 2 is that the frames that hold text, graphics and so on can be grouped together. Select one, shift/select a second, and you can then move both together. This is immensely useful, though what you can't do as yet is permanently group them together. Drawn graphics can be rotated within frames too.

Junior is just what it says — a cut-down version that retains all the word processing but ditches many of the more complex page layout features of the real thing. It's much smaller, so runs in an unexpanded 1Mb machine easily. The major feature of *Junior* is its set of 'effects buttons'. The quirky hierarchical style system of full-blown *Impression* is

too complicated for novice-level wordprocessing, so Concepts has removed it. Now there are menu options for the typeface, size, line spacing and so on; plus underlining, condensed and expanded. What seems lacking is any 'bold' or 'italic' buttons. But bold is a whole different typeface, so to select bold or italic, you use the font menu. While this is technically correct, it may not be the right approach for the novices that *Junior* is aimed at. Release 2 gets the effects treatment as well, though it retains the old style editor too.

Ovation SPELLING

Beebug's *Ovation* is a worthy competitor to *Impression*. It clearly derives its inspiration from Quark Xpress on the Macintosh. For example frames have an unbreakable hierarchical structure. A frame drawn within another becomes its child, and the child moves about if you move the parent. The child cannot be moved outside the parent box, although you can cut it out then paste it somewhere else. Sounds like more trouble than it's worth, but believe me, it's a boon.

Xpress is the professional DTP package right now. If you're picking a role model, Xpress is a good 'un. There are some very neat points to *Ovation*, like the ability to use both paragraph styles (like Acorn's *Desktop Publisher*) and local styles (like *Impression*'s effects). Unlike *Impression*, there are bold and italic effects, as well as condensed, expanded and so on. The bold button searches for the bold version of whatever font you're currently using, but it doesn't get confused if that happens to be *Vogue*.book — it correctly finds *Vogue.demi*. It does however have trouble with font families of more than one bold (for example French from the Electronic Font Foundry, with both French.bold and French.demi-bold).

Points I really don't like — you can't import text from anything except Edit, and you can't pre-tag it so it's imported with the paragraph styles already set up.

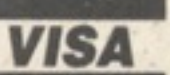
Ovation has been around for a couple of months now, but the

Quality Disks JAPANESE/EUROPEAN MADE TOP BRAND BULK

3 1/2" DSDD 39p



inc VAT and labels
ANY QUANTITY



Disk Boxes - 3.5" 80 capacity £4.50,
40 capacity £3.99 inc.

Post and packing £3.95 per order (£8.00 overnight)
All disks are purchased direct from a major
manufacturer and are 100% guaranteed.

MARKETace LTD

20 Stapledon Road, Orton Southgate,
Peterborough PE2 0TD

Tel: (0733) 371799 (24 hours)

Fax: (0733) 370722

Callers welcome Mon-Fri 9-5. Sat. 10-1.

LOOK! AMAZING END OF SEASON SALE OFFERS

3 1/2" DS/DD

Inc. Labels

BULK BUYERS LOOK!

50 3 1/2 DS/DD	£21.00
100 3 1/2 DS/DD	£38.50
150 3 1/2 DS/DD	£58.00
200 3 1/2 DS/DD	£74.00
400 3 1/2 DS/DD	£140.00
500+ 3 1/2 DS/DD	£Call

Prices incl. VAT & P&P

37p

LOOK! DISK BOXES
40 cap £4.00
80 cap £4.25

NEW POSSO STACKABLE
BOXES
150 cap £15.00

3 1/2 DS/HD
80p

SONY
BRANDED
74p

5 1/4 DS/DD 23p
5 1/4 DS/HD 45p

SONY BULK
3 1/2 DS/DD
41p

★ ALL DISKS CARRY A LIFETIME GUARANTEE ★

VAT included ADD £3.00 P&P. ADD £9 next day delivery

AMIGAS	Mouse Mat.....£2.50	ATARIS
SCREEN GEMS.....£355	Cleaning Kit.....£2	DISCOVERY.....£259
BATPACK.....£355	Ram Pack.....£35	Turbo Pack.....£350
FLIGHT OF FANTASY.....£355	+ clock.....£40	EXTERNAL DRIVE +PSU.....£67
CLASS OF 90'S.....£493	Cumana drive.....£66	Zip Stick.....£11
FIRST STEPS.....£510	3.5" ext drive.....£57	

★ QUICKJOY JET FIGHTER JOYSTICK £12 ★

CALL OR SEND CHEQUES TO B.C.S LTD
349 DITCHLING ROAD, BRIGHTON BN1 6JJ
Tel: 0273 506269 (mobile phone: 0831 279084) 7 days. 24 hours.



R.S.T COMPUTER MEDIA
MAIL ORDER/HARDWARE/SOFTWARE

0582 872754

AMIGA SPECIALIST

SPECIAL CHRISTMAS OFFER

With EVERY
Amiga A500
★ SCREEN
GEMS ★
★ FLIGHT OF
FANTASY ★
★ OR ★
★ BATPACK ★

1 MEG AMIGA
MEGAPACK
£399 INC VAT
PLUS JOYSTICK

FREE
24HR
DELIVERY
SECURICOR

★ SPEEDKING
JOYSTICK ★ 1
MEG OF MEMORY
★ READY FITTED
& TESTED ★ TV
MODULATOR ★
WORKBENCH ★
★ MOUSE ★

SCREEN GEMS

★ Shadow of the Beast II
★ Back to the Future II
★ Days of Thunder
★ Knightbreed
★ Deluxe Paint II

FLIGHT OF FANTASY

★ F29 Retaliator
★ Rainbow Island
★ Escape from the Planet of
the Robot Monsters
★ Deluxe Paint II

BAT PACK

★ Batman - The Movie
★ F-18 Interceptor
★ New Zealand Story
★ Deluxe Paint II

DISK DRIVES
CUMANA 3.5

£69.00 +P&P

20 MEG
Amiga
A590
Hard drive

£339

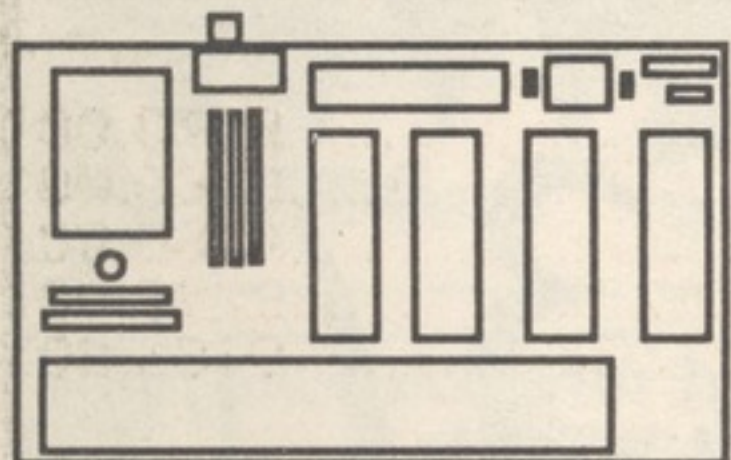
+ P/P

3.5
DS/DD
135 TPI
DISKS **£3**

RING NOW 0582 872754 OR WRITE R.S.T COMPUTER MEDIA,
57 RIDGEWAY, KENSWORTH, BEDS LU6 3RL

COMPUTER UPGRADING BARGAINS

AMIGA A500



- ★ Increase RAM from 1/2Meg to full 1 Meg
- ★ Small board design
- ★ Real-time clock with battery back-up
- ★ Off/on switch

ONLY £37.50
without clock £33.00

Fantastic
Prices!!

ATARI STE

Easy to install RAM EXPANSION

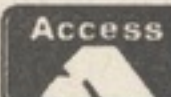
- ★ Upgrade 520STE to 1Meg (2x256 Simms)£39
- ★ Upgrade 520/1040 to 2Meg (2x1Meg Simms).....£110
- ★ Upgrade 520/1040 to 4Meg (4x1Meg Simms)£230

AMSTRAD

- ★ Model 1512 RAM Upgrade to 640K£21
 - ★ For super speed calculations the INTEL 8087-2 (8MHz) Co-Processor ..£87
 - ★ For higher performance, replace your 8086 cpu with the NEC v.30 8 Mhz..£15
- Kits supplied with instructions

PRICES INCLUDE VAT AND CARRIAGE

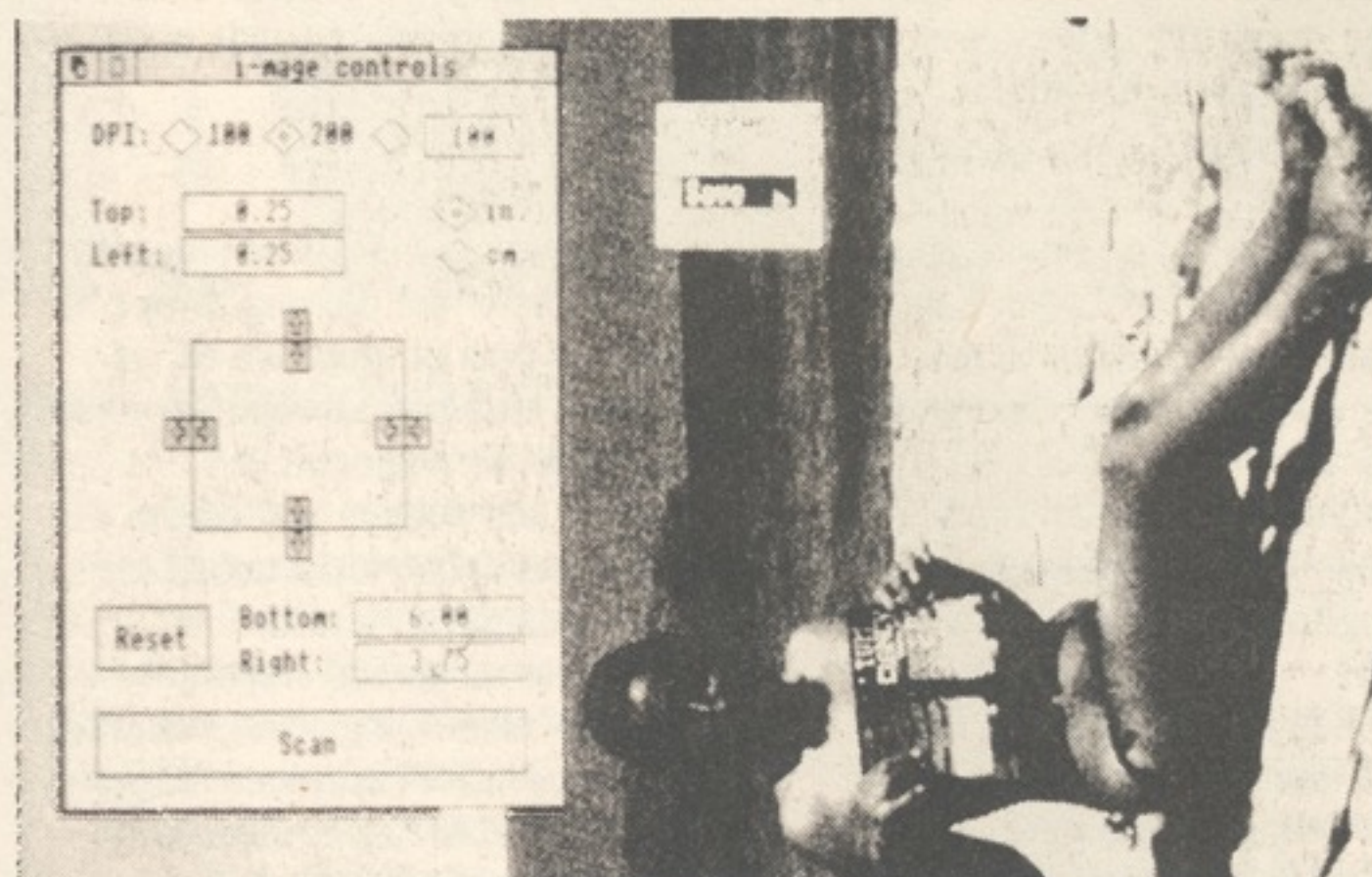
SWIFT-TECH



Open up to 7.00pm Mon- Sat

Tel: 0480 811805

37a High Street, Offord Darcy, Cambridgeshire, PE18 9RF



• Colour scanning arrives for the Arc. It is in colour, honest, see page 3!

show gave first sight of the hyphenation and spelling checker. This looked fast and neat, and should be available now. I wouldn't pick a desktop publishing package on price (or else I'd be using Draw for everything!), but Ovation looks particularly good value at £114 including VAT, and Beebug's rather nice alternative set of fonts (Palatino, Helvetica and Avant Garde lookalikes). It really needs a 2Mb machine though – with the spelling module Ovation is big!

Clares' Tempest looks like it could be a runner too. But at the show author Dave Coathupe was kept busy explaining why it wasn't quite ready yet. One thing you can definitely do is select several frames at once, or link frames and group them permanently. Its discretionary, not tied to where you draw the frame as with Ovation, but it doesn't seem possible to ungroup frames once grouped. There will be a fuller report when I have a copy that's nearer to the real thing.

Beebug is on 0727 40303, Computer Concepts is on 0442 63933, EFF is on 0990 28698, Clares is on 0606 48511.

HOTLINKS

Colton Software, Minerva and Linguinity have got together to make their Pipedream, Graphbox and Presenter interact more. The latest upgrades of all three use 'hotlinks'. If you make a spreadsheet in Pipedream, then export a section of it (as a CSV file) to Graphbox or Presenter, you can show it as a graph. The new bit is this: change the spreadsheet and the graph changes too. Someday all software will be built like this... Colton is on 0954 211472, Minerva on 0392 437756, Linguinity on 0986 85476.

COLOUR SCANNING

Irlam Instruments has released a new

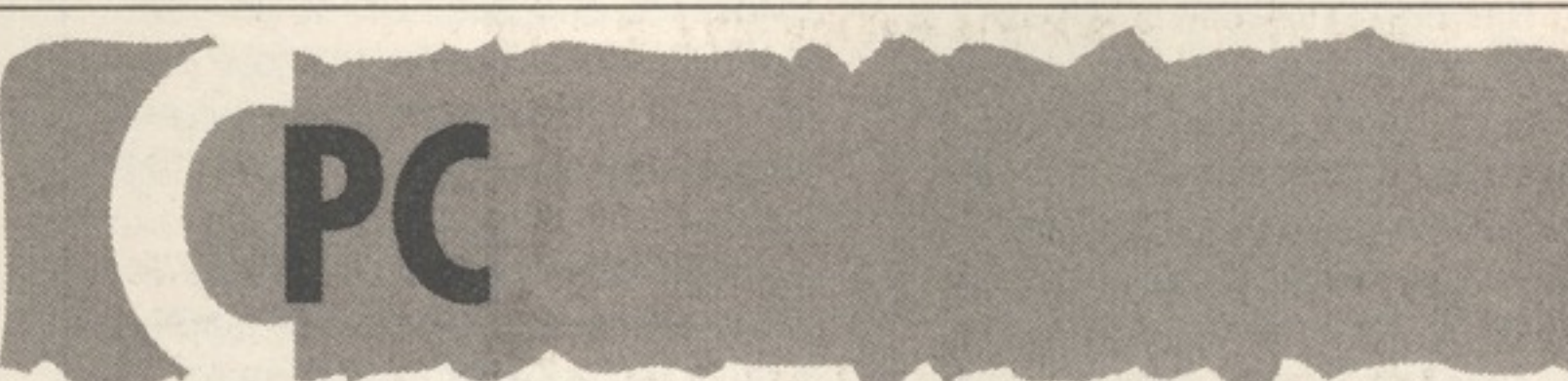
scanner, this time a 200 dots per inch colour model to complement its excellent but exorbitantly priced greyscale machine. The 'image' is based on the Sharp JX100 scanner, with an interface module and control software. The Sharp lacks even an on-off switch (have you noticed that today's techie gear doesn't have an off switch, it has a 'standby mode' instead). It's the size and shape of a decent dictionary, but see-through. You put it on top of your pic to be scanned – it can cope up to a postcard sized image – and set it off with a mouse-click. It's fascinating to watch the scanner head trundle back and forth inside the box. But only once. So take a ten minute nap.

The software includes Acorn's ChangeFSI application. This converts the 24-bit colour data from the scanner into a mode 21 sprite at around 200 pixels per inch. One scan can mean around 3Mb of colour data and a 1Mb sprite! So a hard disk and lots of memory are vital. An ARM 3 would not go amiss either.

The results are impressive, but not quite as true-colour as I had hoped. Reds are too red, blues too blue. The colours are generally too vivid, turning sparrows into parrots, and there's no adjustment possible. As it stands, colour scanning is a curiosity, and an expensive one at a tad under £700. Rumours are rife of a version of ChangeFSI that allows 'gamma correction', so you could tone down the scanned colours. Now that might make it a little more interesting. Irlam is on 0784 451192.

Over the next couple of weeks, I hope to take a look at Arclight and Rayshade, two ray tracing packages, and then at the direct drive laser printers from Computer Concepts and Calligraph.

Ken Coumarin

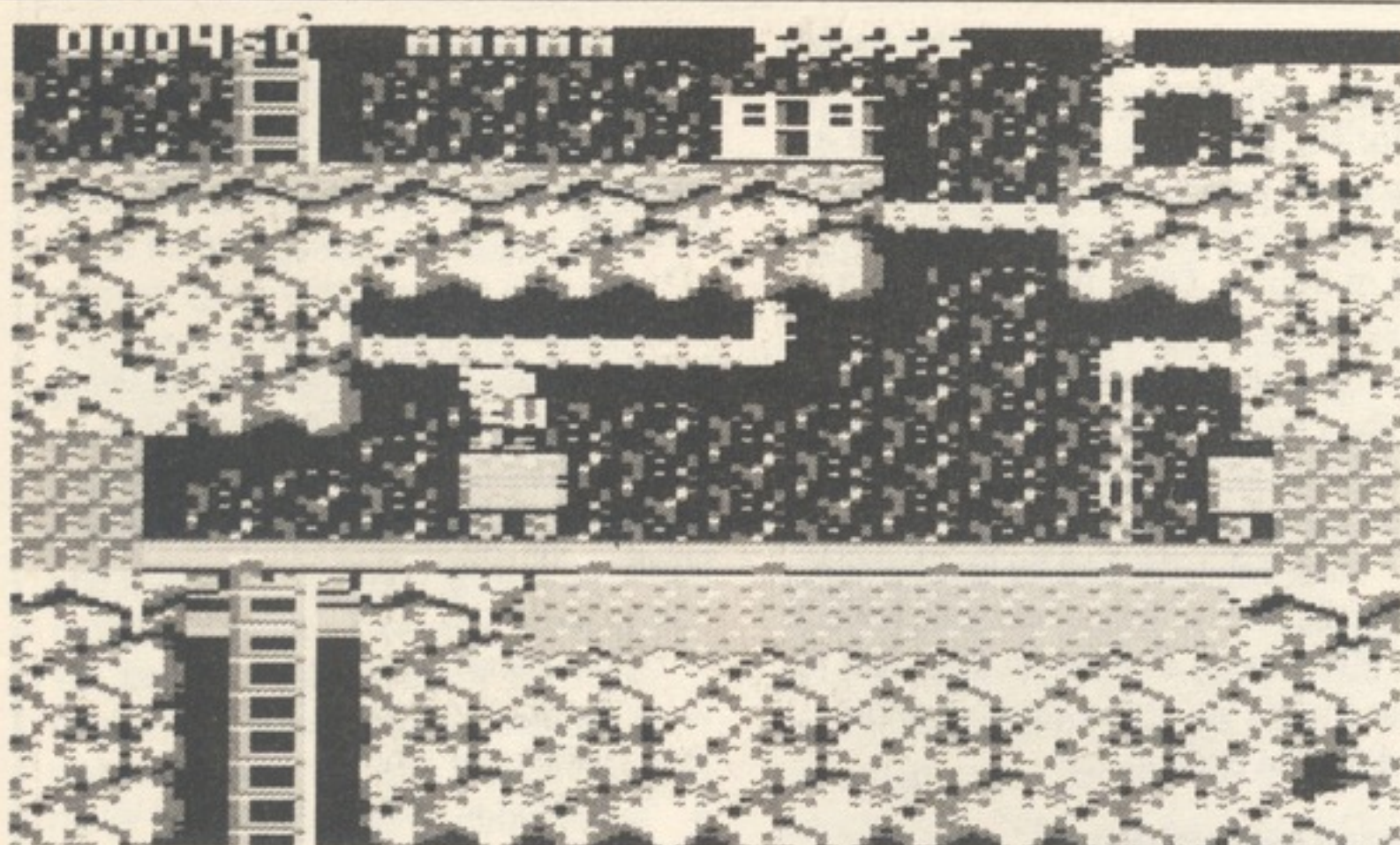


GREMLIN'S GRAPHICS

It occurred to me the other day that Gremlin Graphics has really put on a spurt of activity recently. Up until the Lotus Challenge launch, the only Gremlin game of note for a year or more had been Impossamole. So it's good to see the company launching itself back into CPC software.

The Gremlin stand at the CES was

impressive too. Pride of place was taken by a gleaming, red Lotus Esprit Turbo. Needless to say, this was strictly out of bounds to the greasy-fingered gawkers clustered round the stand, but by way of consolation, two stand-up arcade consoles were demonstrating Lotus Challenge. And for those with a more competitive streak, there was a special Lotus Challenge just round the



•The Atomic Mud Mines, and some pretty hairy moments as you ride a wagon to the ladder.

corner.

Two players could sit in a cockpit mock-up and race each other in front of an audience. The set-up came complete with large video displays mounted above the cockpit for spectators and a live commentary from London DJ Alan Andrews. The fastest time set during the whole of the four-day show would earn the driver a cash prize of £100! On the public days, huge queues formed as eager punters sought to try their luck. Mind you, the presence of Gremlin's "bevy of beautiful assistants" might have had something to do with that.

The Amstrad version of *Lotus Challenge* is still being worked on, but early versions look fast and smooth. At the same time, Gremlin has also just about finished its first console game, *Switchblade*, and is nearing completion of its version of *Shadow of the Beast*.

All three of these games are looking very, very good, and they all have one thing in common. They use the Amstrad's four-colour mode rather than the lower-resolution 16-colour Mode 0.

As far as I'm concerned, it's paid off admirably. The extra resolution has been well worth the trade-off in colour. It gives a level of detail quite startling after the frequently blocky full-colour graphics seen on other games. It's a brave move on Gremlin's part, but it's better than trying to be too ambitious with the Amstrad graphics and coming up with a game that looks fine from across a room, but is just a colourful mess at playing distance.

I can't wait to see the finished versions of all three.

RICK DANGEROUS II

I have to admit, when *Rick Dangerous* came out I was completely hooked right from the start. It was an old, old

formula, but the graphics were so well-drawn and so humorous, and the puzzles so well-constructed and planned, that I simply couldn't stop playing it!

Well now *Rick Dangerous II* is here and – yes – it's even better. This time Rick is out to save the world from invading aliens in a five-level reflex-testing puzzler with all the incredible playability of the first.

Level one has Rick boarding the alien spaceship in Hyde Park, London, and battling through its various levels against lasers, robots, walking canisters and other nasties.

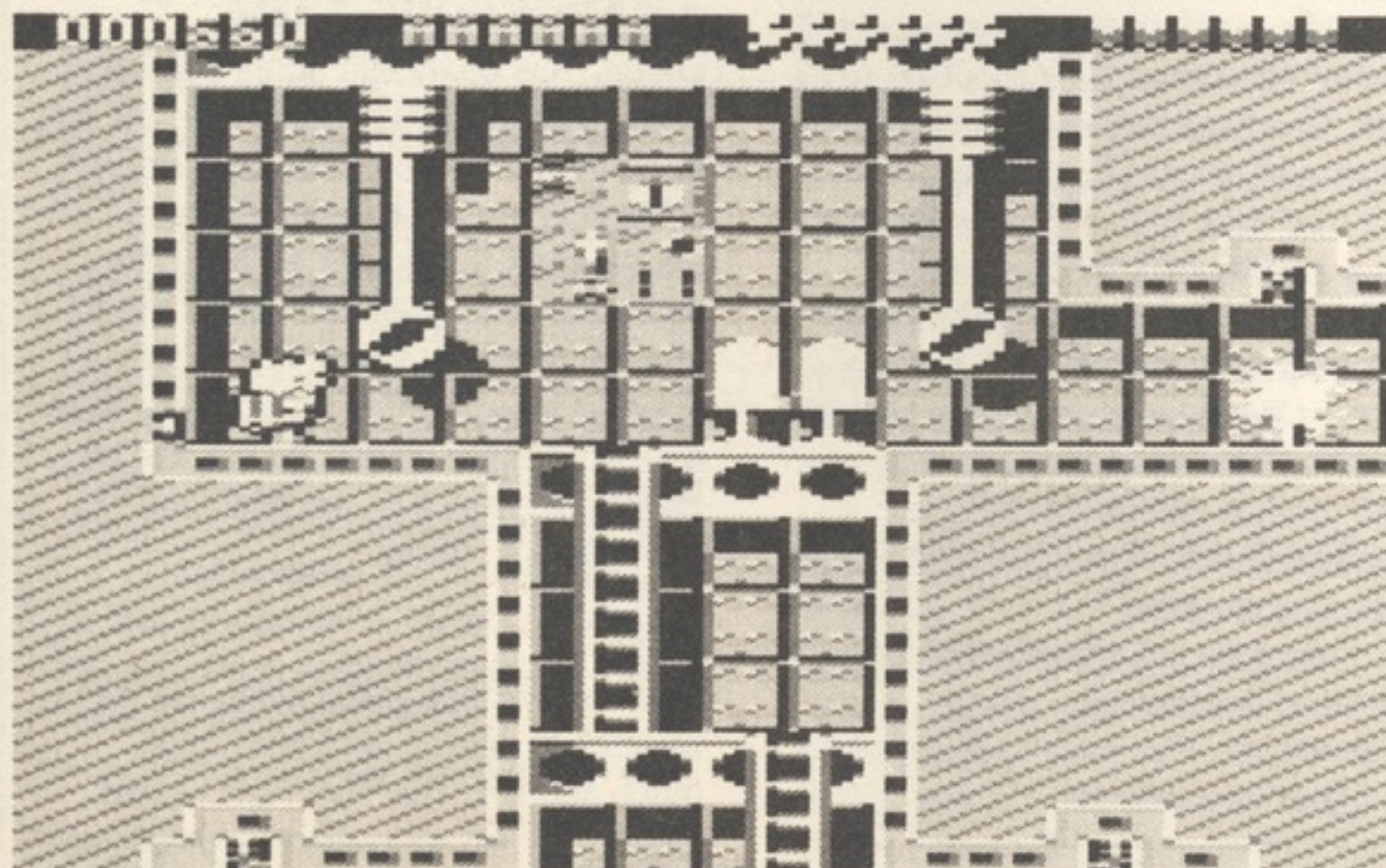
Succeed and you get to level two and the Ice Caverns of Freezie, on one of the alien planets. Here you're up against sliding ice blocks, penguins, what look like marauding norsemen and treacherous sheets of ice.

Level three takes you to the Forests of Vegetabilia, where you're attacked by falling logs, spikes, monkeys and rolling rocks.

Level four is in the Atomic Mud Mines, where rolling drums, thundering wagons, foot-cloying slime all conspire to wipe you out.

And level five? Well, level five must remain a mystery – for the time being. You see *Rick Dangerous II* has this unusual game construction whereby all the levels do lead on from each other, but you can also play any of the first four at will. To reach level five, however, you have to get through the first four in sequence in one go. Ouch!

Graphics are a touch blocky, but very colourful – and funny. Sound is very good, with a different soundtrack for each level and plenty of sound effects to let you know what's going on. Best of all, though, is the fact that the game is so utterly addictive and playable.



• Robot-dodging in Hyde Park. Watch those electrodes hanging from the ceiling!

HIGH QUALITY DISKETTES

PIN NUMBERED QUALITY DISKETTES 100% CERTIFIED AND GUARANTEED 100% ERROR FREE. MANUFACTURED AND QUALITY ASSURED BY AN INTERNATIONAL BRAND NAME

3 1/2 DS 720K
DD

37p
EA

3 1/2" COLOURED DISKS 40p

5 1/4 DS
DD

360 K

5 1/4 DS
HD 1.2 K

42p
EA

21p
EA

3 1/2 PLASTIC
LIBRARY 89p
5 1/4 CASES

EA STORAGE BOXES

3 1/2 40 cap...£4.20 3 1/2 80 cap.. £4.60
5 1/4 50 cap...£4.40 5 1/4 100 cap £4.90

EURODATA
12A QUAKERS YARD
ADAM AND EVE ST
MARKET
HARBOROUGH
LEIC LE16 7LT
TEL: 0858 433992
FAX: 0858 432549

GO ON
BE
TEMPTED

LIFETIME GUARANTEE
ALL PRICES INCLUDE DISKETTE LABELS ENVELOPES AND VAT
ORDER NOW WITH POSTAL ORDER OR CHEQUE MADE PAYABLE TO EURODATA, OR TELEPHONE YOUR ORDER USING MASTERCARD & VISA. SUBJECT TO AVAILABILITY
ADD £3.20 P&P



LOWEST
PRICES
FOR HIGHEST
QUALITY

MICRODIAL

ATARI

520STFM DISCOVERY PACK£279.00
520STE POWER PACK.....£369.00
1040STE EXTRA PACK£460.00
PORTFOLIO£229.00
LYNX.....£165.00

COMMODORE

AMIGA A500 BATMAN PACK.....£369.00
A500 FLIGHT OF FANTASY PACK£369.00
1 MEG BATMAN OR F.O.F. PACK£440.00
A500 CLASS OF THE 90'S PACK.....£515.00
M501 1/2 MEG UPGRADE INC CLOCK & GAME£75.00
PC STARTER PACK.....PLEASE PHONE

PRINTERS

STAR LC-10.....£169.00
STAR LC-24/10.....£249.00
MANNESMANN TALLY MT81£147.00
CITIZEN 120D£125.00
SEIKOSHA SP2000.....£235.00

SOFTWARE UP TO 20% OFF RRP

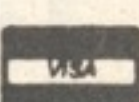
THIS IS A SMALL SELECTION OF OUR WIDE RANGE - PLEASE PHONE - WE WILL TRY TO MATCH ANY PRICE

All prices include VAT and P&P, Courier Delivery add £8.



Please make cheques, P.O.'s payable to "MICRODIAL" and send to:

THE OLD CAMP SHOP, WARRINGTON LANE, ADGEN WHARF, LYMM, WARRINGTON, WA13 0SW.



All items are subject to availability, prices are subject to change without notice. All goods despatched upon cleared payment. Proprietors: Mike Todd and Mal Neary. E. & O. E.

24 HOUR ORDER LINE 0925 75 7696

E.E.C LTD★ **SPECTRUMS** ★ **QLs** ★ **PRINTERS** ★

SPECTRUM PLUS 2 £109.95

SPECTRUM PLUS 3 £149.95

(AS NEW)

★ **MICRODRIVE EXPANSION KIT** ★

Includes Microdrive, Interface 1, Booklet, Network Lead, Introduction

Cartridge and flex connector£59.95

MICRODRIVE EXPANSION KIT AS ABOVE WITH 2 MICRODRIVES.....£69.95

EXTRA MICRODRIVES (New).....£24.95

EXTRA MICRODRIVES (Reconditioned).....£16.95

MICRODRIVE CARTRIDGES..... Wallets of 4: - £12.00..... Boxes of 20: £55.00

INTERFACE 1 CONNECTORS AND LEADS.....each £3.50

PRINTER (RS232) LEADS for INTERFACE 1.....£12.95

POWER SUPPLY UNITS 48K (Standard).....£8.95

POWER SUPPLY UNITS for Heavy Duty, or 128K.....£10.00

POWER SUPPLY UNITS for Heavy Duty, or 128K +3.....£18.00

POWER SUPPLY UNITS for QL.....£12.00

★ **SPECIAL OFFERS** ★

WHILE STOCKS LAST

NEW PHILIPS COLOUR MONITORS.....£220

3 1/2" UNIVERSAL DISK DRIVE.....£89..... LEAD.....£12

★ **PRINTER CLEARANCE** ★

CITIZEN LSP100 9-PIN DOT-MATRIX PRINTER, Centronics, Epson & IBM

graphics. Sheet or Tractor Feed 150/175 cps, NLQ 30.....£120.00

CENTRONICS INTERFACE..... (£20 if bought with computer).....£24.00

DAISYWHEEL PRINTER C.I.TOH SERIAL TYPE 20cps. Paper Width 13 ins.

Chars/line; 115, 138, 172 selectable on top panel. Can proportional

print, also make 1+3 copies. Inc lead.....£140.00

ALPHACOM PAPER;.....ONE ROLL:- £3.50..... FIVE ROLL PACK:- £12.95

★ **SINCLAIR QL** ★

THE EXPANDABLE SYSTEM FOR SMALL BUSINESSES, BEGINNERS AND EXPERTS

QLs COMPLETE, JM FULLY TESTED AND WITH 6 MONTHS WARRANTY

£125

SOFTWARE: QUILL - Word Processor, ABACUS: Spread Sheet, ARCHIVE;

Records, EASEL; Business Graphics.

CUSTOMERS BUYING ONE OF THE QL COMPUTERS ARE GIVEN ONE YEAR'S FREE

MEMBERSHIP TO QUANTA (Help, Newsletters, & 40. + library programs - most Free).

QUANTA MEMBERS CAN OBTAIN A £5 DISCOUNT.

★ The JM QL can run all the Programs available for the QL system ★. The JS ROM CAN BE FITTED

AND TESTED BY EEC LTD FOR AN EXTRA £25 at the time of order, but not retrospectively.

BUSINESS SOFTWARE (Suitable for Standard QLs) SMALL TRADERS PACK £24.95.

INVOICER £19.95, GENERAL LEDGER £19.95, SET OF THREE £50, MAIL MERGER

£14.95, FILLER PACK £14.95. Also STOCK ACCOUNTING £39.95, (for expanded QLs)

Send S.A.E for DETAILS & QL FULL PRICE LIST.

PRICES INCLUDE VAT. TERMS CWO, ACCESS OR VISA.

Minimum order £10. Carriage £8.00 for printers & QL (overseas £20.00).

Other items £3.00 (overseas £6.00)

**EEC LTD**18 - 21 Misbourne House, Chiltern Hill, Chalfont St Peter,
Bucks, SL9 9UE. Tel: 0753 888866. Fax: 0753 887149 (AD7)

The thing is that the puzzles have just the right level of difficulty and surprise. With some of them you die a few times until you suss out the joystick move or the timing that will keep you out of trouble. Other times, it's just a case of watching what's happening, picking your moment and going for it. Its the careful blend of timing, thought and frantic action that makes the game such a winner.

Rick II is published by Microprose under its Micro Style label label. Price is £9.99 on tape, £14.99 on disk. And for your money you get a very big game and almost endless fun.

NEMESIS NEWS

Sadly, Nemesis, producer of the classics *Bonzo Blitz*, *Super Meddler* and *Maxidos*, is no longer with us. But the software lives on, thanks to peripherals supplier Microstyle (nothing to do with Microprose's Micro Style label).

In addition, *Maxidos* (the only disk utility which works in Amsdos) is to be given away free with each Microstyle disk drive.

All three programs have other software bundled with them, and the asking price in each case is £13.75. Stocks are not limited, since production

of the software will continue. To order, or find out more, write to Microstyle at 212 Dudley Hill Road, Bradford, West Yorkshire BD2 3DF, or call on 0274 636652.

TURRICAN POKE

Rainbow Arts' *Turrican* is a goodie but a toughie. Never mind - this tape poke from Graham Smith gives you infinite lives and infinite vitality on the first four levels...

- 1 ' Turrican -tape-
- 2 ' By Graham Smith
- 3 ' Infinite lives
- 4 ' Infinite vitality
- 5 '

```
10 DATA 06,00,11,70,01,cd
20 DATA 77,bc,3a,85,01,67
30 DATA ee,75,6f,22,80,02
40 DATA c3,80,01,21,7e,00
50 DATA 22,59,1b,c3,00,1b
60 DATA af,32,f0,04,3e,c3
70 DATA 32,63,8f,c3,00,03
80 FOR j=0 TO 41:READ a$
90 x=VAL("&"a$):y=y+x
100 POKE j+96,x:NEXT j
110 IF y<>3644 GOTO 130
120 CALL 96
130 PRINT"data error"
```

Rod Lawton

64

OPERATING AGAIN

A development version of a new C64 operating system and terminal emulation program has fallen into my lap, courtesy of Zigzak Software. According to the draft manual enclosed with the software (currently on disk, as you would expect) the developers originally wanted only to come up with programmable terms software, but as the project went on, they realised what they wanted from their system would be best delivered by a completely new O/S.

Cterm works on the basis that every element in it is modular, that these modules are themselves programmable and that nothing is bolted to the spot. You can map your memory in the configuration that best suits your requirements. The main module is called the 'manager,' and this contains all the default routines for system housekeeping. The transportability of the modules offers tremendous potential to those who still enjoy programming their machine to its limits. One example used to illustrate the possibilities in the manual is this: you could have a disk module for use with a parallel DOS that took full advantage of the speed offered, then you could have another disk module which included fast-load for normal disk systems. This is possible because any given module can be installed or removed from the main operating system at any time.

Programming is achieved via a command line interface using keywords. It's very easy to make and use batch files with this system. In fact, if the finished program lives up to its potential, anybody familiar with assembler will probably feel that they've

had their hands untied once they spend a few hours with Cterm.

The purpose for which Cterm was primarily designed, however, cannot be fully explored at the moment. The fact is that the code enabling you to send mail on Compunet hasn't been included in the version sent to us. However, *Commodore Format* will be running a full review in its 'inside information' column when the time comes. Meanwhile developers may be interested to know that Zigzak has been working on what it refers to only as an interface package, which will allow Amigas to be used as cross-development systems. Whether commercial programmers, who port down from 386 based machines at the moment, will be persuaded to try it out remains to be seen. Zigzak can be contacted on Compunet (voice) 071-267 2468 and (data) 071-284 4086 or MBX them (on Id ZIGZAK).

A DANGEROUS GAME

Enough has been said about the return of the man in the hat elsewhere, but just to confirm it for you: *Rick Dangerous II* is the best recent release for the 64 at the moment. Computer games often make better sequels than other media and the consensus here is that this has been achieved with *Rick*. Now you have a real dilemma: do you go out and buy *Rick Dangerous II* or the new Cocteau Twins album. Tricky.

VFL

A new program backup utility has been developed, but as yet I don't know much about it. The *Very Fast Loader* backs up your software onto video tape and comes with the necessary leads to connect your C64 to a VHS video

MERLIN COMPUTERS

OUR PRICES ARE MAGIC

AMIGA 500 ONLY £379.00 INC BATMAN PACK

ATARI 520 STE POWERPACK£359.99

TRY THE ST's MIDI POWER

CASIO MT 240 AN EXCELLENT LOW COST MIDI KEYBOARD £89.99

OTHER CASIO KEYBOARDS ALSO AVAILABLE

1 MEG 3.5" DISK DRIVES ST AND AMIGA£75.00

ATARI STFM 1 MEG INTERNAL DRIVE UPGRADE£69.99

STAR LC 10 COLOUR PRINTER.....£215.00

STAR LC10 MONO PRINTER.....£169.99

STAR LC10 COLOUR HEAT TRANSFER

RIBBONS - IDEAL FOR PRINTING YOUR OWN

T-SHIRTS ETC.....£17.99

BLANK DISKS AT
AMAZING LOW PRICES

10 3.5" DS/DD life time guaranteed£6.99

10 5.25" DS (per 10).....£3.50

Bulk buyers please phone for bulk prices

WE STOCK MANY ITEMS NOT LISTED HERE. PLEASE PHONE
FOR ANY ITEMS NOT LISTED.

All prices include VAT and P & P

PLEASE NOTE ATARI 8-BIT OWNERS - WE SUPPORT YOU

PLEASE PHONE FOR DETAILS

MERLIN COMPUTERS62 Chester Road East, Shotton,
Deeside, Clwyd CH5 1QB
Tel: 0244 822597

recorder. Why? Well, apparently the VFL with load 64K into your Commie in the blinding speed of three seconds. Its manufacturer also says that a standard three hour cassette will store 1,000 games. Given that you can pick up a suitable machine to dedicate to this purpose for around the same price as a second disk drive, it does sound mouth watering. But I'm assuming VFL's creator hasn't been disgustingly clever and made the system capable of random access. Of course, none of the VFL people would condone the illicit copying of software either (neither do we) and there's the rub. It's still illegal to make back-up copies of commercial software without the express permission of the publishers. So, think about it. But I still can't see why anyone with serious cash and an equally serious attitude towards their Commodore would want to be without one. An imaginative device.

STILL HARD

While we're on the subject of plugging stiff things into your 64, I should mention (a bit overdue, this) Datel's new 3-slot motherboard. If you're sick of leaning over the back of your machine to wrench out devices and spill coffee in one fell swoop, this is the kit for you. It allows three cartridges to be plugged in at once, and flicks between them by means of a simple three-way switch. It costs a sane £16.99 and will be incredibly useful when those software houses mentioned last issue get their acts together and bring out serious cartridge based games. Talk to these people now. They hide away at Fenton Industrial Estate, Govan Road, Fenton, Stoke-on-Trent.

P.S. All those rumours last issue: it's a disgrace spreading them like that. Who's doing it? Commodore, by any chance. Surely not.

Sean Masterson



HYPER HYPER

The media hysteria about viruses continues unabated, and quite a few people are doing quite nicely thank you out of it. It seems you can't move without tripping over some new virus prevention software, or Dr Alan Solomon, or both.

The latest to cash in, sorry "tackle the virus problem at its roots" is Abingdon firm Sophos with a video to help educate PC users about the virus threat. Reasonable enough you might think; the video lasts 10 minutes, with a 20 minute extra section on virus containment for advanced users. It even claims to be humorous. Fancy watching it? You'll have to shell out £295 plus VAT first. Not so keen any more, huh?

If you have money to burn phone 0235 559933.

FORGETFUL TYPE

If you have ever saved your document and then realised you have no idea which of the dozens of files called something like 'trb126c3.doc' it is, then a new product called Fleetfinder may interest you.

Now there are plenty of pieces of software which will search your hard disk for a particular piece of text and tell you what file it's in. The trouble is you can go for a coffee and a cigarette while they work – and if you've got a big hard disk you can make that a three course lunch as well.

Fleetfinder is different because it uses a hardware add-on to speed the search. Plugging into an 8-bit slot, the Fleetfinder board pulls the data off the hard disk using direct memory access techniques and uses a custom chip to search for the words you have given it.

The company which makes it, Fleetwood Systems, claims that it finds files 20 times faster than a software search. The board and its accompanying programs cost £125.

TRUE TO TYPE

Good news for desktop publishers fed up with guessing what the finished page

will look like. Adobe's Adobe Type Manager is to be released for Windows 3 in the next few days. ATM, as it is fondly known by the Macintosh community which has enjoyed its benefits for a couple of years, takes the PostScript outline fonts used by expensive laser printers and converts them into precise screen images. It does this in real time, so you don't clutter up the hard disk with lots of screen fonts you don't need and you can be sure that the exact size, style and weight will be created. Thus what you see really is what you get. Better still, ATM uses the PostScript outlines to produce bit-mapped fonts for non-PostScript printers, so you can use a cheap laser or even dot-matrix printer.

The down-side (there always is one) is that it slows things down and needs a good chunk of memory to do its business and store the fonts it creates in case they are needed again. The benefits outweigh the problems however, and this could be one of the major software launches of the PC year.

There are as yet no details on pricing or availability; I'll keep you informed.

SCOT FREE

Here's an unusual approach to piracy. X-Tree, maker of, well, X-Tree, has offered to upgrade any pirated version of its disk maintenance software to an official version, with manuals and the rest for just £30.

All you have to do is send a printout of the X-Tree title screen and the cash and everything's all official and above board again. And the firm promises to shop you to FAST. Honest.

KEY TO THE ARGUMENT

There are plenty of keyboards about with strange add-ons; track balls, clocks and even calculators, but one I found on the Cherry stand at the Earls Court business show takes the biscuit as far as I'm concerned.

It's a keyboard with built-in magnetic card reader. The idea is that

POST EXPRESS

Proprietor: Mark A Cameron.
All computers are genuine UK specification.
All computers include a FREE HOLIDAY PACK.

ALL PRICES INCLUDE VAT AND DELIVERY

Please make cheques/P.O.'s etc payable to POST EXPRESS

POST EXPRESS,
HILLCREST HOUSE, SUITE 3,
49A VICARAGE ROAD,
LONDON E10 5EF
TEL: 081 518 7494

☆ FREE 2 YEAR WARRANTY ☆ WITH ALL COMPUTERS BELOW

HOME/BUSINESS EXTRA PACK ATARI 1040 STE

EXCELLENT PACKAGES!

ST Word Pro	£49.95
ST Database	£49.95
ST Spreadsheet	£59.95
ST Graph	£39.95
First Basic	£49.99
S.T.A.C	£39.95
Hyperpaint	£24.99
Prince	£24.99

ATARI 1040 STE
TOTAL £839.71 OUR PRICE

BATMAN PACK, FLIGHT OF FANTASY PACK, EDUCATIONAL PACK AMIGA 500

A520 Modulator	£24.99
F29 Retaliator	£24.95
Deluxe Paint II	£49.95
Rainbow Islands	£24.95
Robot Monsters	£19.95

AMIGA 500	£399.99
TOTAL	£544.78 OUR PRICE

A520 Modulator	£24.99
Batman The Movie	£24.95
Deluxe Paint II	£49.95
New Zealand Story	£24.95
Interceptor	£24.95

Amiga 500	£399.99
TOTAL	£549.78 OUR PRICE

AMIGA 500
+ OVER £300
WORTH
OF SOFTWARE

£364
£364
£564
OUR PRICE

SUPER SOFTWARE PACK ATARI 1040 STE

22 TOP QUALITY GAMES!

Arkanoid 2, Buggy Boy, Ikari Warriors, Marble Madness, Thundercats, Wizball, Xenon, Star Quake and many more plus word processor, spreadsheet, diary and address book file.

£453.98

ATARI 1040 STE £499.99

TOTAL £953.97 OUR PRICE

COMMODORE

Amiga 2000 + keyboard	£1099.90
Amiga 2000 + 1084 colour monitor	£1490.90
Power Drive 31/2 (ext) 1Mb disk drive	£78.99
Philips CM8833 Stereo Colour Monitor	£269.99

ATARI

520 STFM Discovery Pack	
+ £300 free S/W	£264.00
520 STE Power Pack	
+ £530 free S/W	£364.00

MEGA 1 ST - 1Mb CPU - keyboard	£539.95
MEGA 2 ST - 2Mb CPU - keyboard	£890.95
MEGA 4 ST - 4Mb CPU - keyboard	£1199.95

☆ PORTABLE ☆

STACY 2Mb + 20MB hard disk - LCD screen	£1599.90
STACY 4Mb - 40MB hard disk - LCD screen	£1899.90

ALL ABOVE COME COMPLETE WITH PROFESSIONAL PACK 11 £234 OF ESSENTIAL BUSINESS SOFTWARE

PHONE OR WRITE FOR YOUR FREE CATALOGUE ☆ FOR ENTERTAINMENT, CREATIVITY, EDUCATION AND BUSINESS

COMPUTER REPAIRS

G B SYSTEMS — LINK

The Repair Specialists

Sinclair	16K, 48K, 128K, +1, +2, +3
Commodore	VIC20, 16, 64, 128, Amiga
Amstrad	464, 664, 6128, 8256, 8512, 9512
Acorn	Electron, BBC, Master, Archimedes
Atari	400, 800, ST520, ST1040

All the above are on a fixed labour charge plus the cost of the parts

IBM..... PC, XT, AT, PS2

Amstrad..... 1512, 1640, 2086, 2286, 2386

IBM Clones..... Any make / model undertaken

The above are charged on a hourly rate

Most printers and monitors repaired

Spares we can supply most parts from single ICs to complete exchange boards

Sales(new/secondhand)-Installation-Cabling

Why not save hassle and send us your computer for repair by post

Phone 081 979 5638

86 Walton Road East Molesey Surrey KT8 ODL

150 Space public car park at rear of shop

FIRST CITY SERVICES

FREE

UNTECHNICALLY SPEAKING

A 16 page introduction to hardware, databases, spreadsheets, graphics, communications, and general computer terms.

FREE

THE ADVENTURES OF MAX AND HIS MODEM

A 34 page introduction and explanation of computer communications, on-line services, communication facilities and communications terms.

FREE

PC PRODUCTS CATALOGUE

A catalogue of computer hardware and software products at heavily discounted prices with best value for money recommendations.

FOR FREE ADVICE AND GUIDANCE ON ALL COMPUTER MATTERS CALL FIRST CITY SERVICES FIRST!!

FIRST CITY SERVICES LIMITED

50 Shenley Road, Borehamwood, Hertfordshire, WD6 1DS
Telephone: 081-207 6777 Fax: 081-905 1534



**Your computer is
the only teacher
which YOU CONTROL!**

**Whatever your age, whatever your subject
- let your computer help you learn.**

Subjects include ...

**French, German, Spanish, Italian, English
History, Geography, Science, General Knowledge,
Football, First Aid, Sport, England, Scotland,
Natural History, Junior Spelling and Arithmetic**

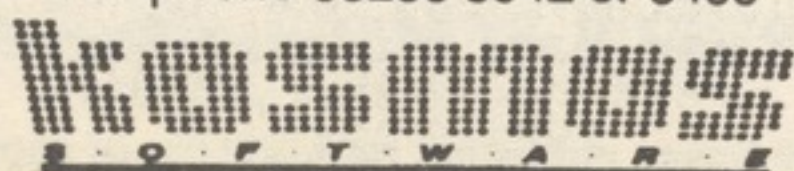
Available for most popular
home & business computers



*Kosmos are specialist producers of Educational
Software designed to help you enjoy learning from your
computer. Our programs even allow you to add your
own lesson material.*

**Write or telephone for a FREE 20-page BROCHURE
of our Educational & Leisure software**
Please state your computer type

Kosmos Software Ltd, FREEPOST (no stamp needed)
DUNSTABLE, Beds. LU5 6BR
Telephone 05255 3942 or 5406



you can issue people with cards and they can use them in the keyboard to give them access to the system.

Of course it is fully programmable, so you could set it up so users needed to put their Barclaycard in before it let them play *Leisure Suit Larry*. Come to think of it, you could make a few bob around this office like that.

Cherry is on 05827 63100.

EL CID

If you've got a really flash PC running Unix (whaddya mean you've only got a 1512 running GEM? Aspire, man, aspire!) then you can save on buying a second computer. All you need is a monitor and a keyboard to use one of the whackiest VGA cards around.

Called MultiVideo VGA it allows you to connect up to 16 monitors and keyboards to the same machine, and as far as each set is concerned they have their own computer. In reality of course they are all sharing the same disk, processor and memory, but Unix is clever like that.

If you fancy having an office virtually free of big beige boxes, give CID, the manufacturer, a bell on 081-942 9322.

PAGEMAKER 4 OUT SOON

I can confidently predict that version four of Aldus's excellent *PageMaker* DTP package will be with us imminently. How do I know this? Press release? Off the record conversation with an Aldus PR person? No. In fact McGraw-Hill rather let the cat out of the bag with its release of a new book, *Using*

PageMaker for the PC, Release 4, which, according to the latest catalogue, was due out at the end of September.

It costs £23.95 if you want to get ahead of the game - ISBN 0-07-881629-7.

TOWN PLANNING

A much more useful book in the same catalogue is *The SimCity Planning Commission Handbook*. Full of hints and tips for the top-notch city simulator, it also attempts to explain the real-life consequences of the decisions you make in the game.

The book costs £14.95, is by Johnny Wilson and is on the Silicon Valley imprint, ISBN 0-07-881660-2.

THINK YOU CAN DO BETTER?

Here on *Express* we're always trying to do the best for you, and we think an occasional fresh face in the PC column would do you a power of good; change is as good as a rest, a new broom sweeps clean, still waters run deep, that kind of thing.

So here's your chance to be the PC columnist for one week a month. You'll need to know what you're talking about technically, have a good grip on what's going on in the big wide world and be able to write well, on time, and for a pittance.

Interested? Then write a 1,200 word sample column and send it in to me at *Express*, 30 Monmouth Street, Bath, Avon BA1 2BW.

Stuart Anderton

spectrum

PLUS 3 LIVES

With the sad, untimely death of the Spectrum Plus 3 a few weeks ago I thought it might be a good idea to give another plug to the Plus 3 Users' Group, a worthwhile organisation that offers a level of support and help to Plus 3 owners that Amstrad never managed. It's not run by someone with a dodgy beard either. In the wake of the depressing news, The Plus 3 UG is promising a continued commitment to Plus 3ers and say they will "run the group for as long as there are Plus 3 users requiring its services."

And what jolly good services it offers too. For a start, members get a copy of the group's monthly mag, *Plus 3 Contact*. This is a 35-page, A5, photocopied publication with a pretty interesting mix of news, tech tips, utility reviews, puzzles and the occasional special offer. The £11 annual membership fee also gets you discounts when ordering from the group's huge public domain library, which numbers 200 programs at the moment but will soon expand to incorporate another 200 from fellow Specmates across Europe. Finally there are three different helplines run by the group. They can answer your problems by post, telephone and through Micronet and several bulletin boards. I've recommended joining the group in the past, but the demise of the Plus 3

has made membership all the more essential for Plus 3 owners who want continued support and help in the machines' remaining years. Full details of Plus 3 UG are available from Garner Designs, 57 lovers Walk, Dunstable, Beds LU5 4BG.

FANZINES

It's good to hear the regular FALUMMP! of fanzines dropping on my doormat again. One of the best I've seen recently is *Advanced ZAT Programming*, which is soon to be known by the snappy moniker of ZAT from its next issue on. Anyway, despite having the older and altogether less trendy title, issue three is well up to the high standard of the first two with its neat layout, mixed bag of contents and some absolutely top hole art work. As well as the usual game reviews there's a PAW/GAC adventure writing section, letters page, interview with *Crash* magazine and a comment article on piracy. There's also lots of non-Specy related stuff throughout the issue's 30-odd pages too, including a excellently drawn comic strip and columns for CB radio, science fiction and comics. The price is 60p and a stamp from *Advanced ZAT Programming*, PO Box 488, Tweedale, Telford, Shropshire TF7 4SU.

The next edition looks even more promising, as it will apparently include a world exclusive interview with the

swooniest dreamboat in computing, the YS Ed, Matt Bielby. Order your copy now, girlies.

MIKTOR

Our faithful hacker Miktor has come up with another two pokes for your delectation. To get infinite armour in something called, or immortality in a budget title known as *Steel Eagle*, simply type out the appropriate routine, save it so you don't have to bother typing everything in again, Run and then start your game tape from the beginning.

Whilst quietly slipping me the hacks below Miktor, or M Harris as his everyday mild mannered alter ego is known, told me about a bargain he recently snapped up. The old rogue has managed to locate a printer/plotter for the Speccy that costs just £16 (plus £3 p&p), which isn't much more expensive than a ribbon and a roll of paper for most printers.

Obviously there are a few catches. For starters, this bargain is not completely compatible with our machine and, although it conforms to Centronics

standards, a certain amount of fiddling is needed with both the connecting cable and printer driver. It took Miktor's plane-sized brain two weeks to get the thing working, so don't order one thinking the joys of printing will be yours as soon as it's out of the box. For people of a technical disposition however, the output from the plotter is near letter quality, if pretty slow to appear because the machine plots things with a pen rather than hammering it out in traditional dot-matrix fashion. If such drawbacks don't worry you, I'd follow Miktor's trend-setting lead and contact Bull Electrical, of 250 Portland Road, Hove, Sussex BN3 5QT for more details.

BARGAINS

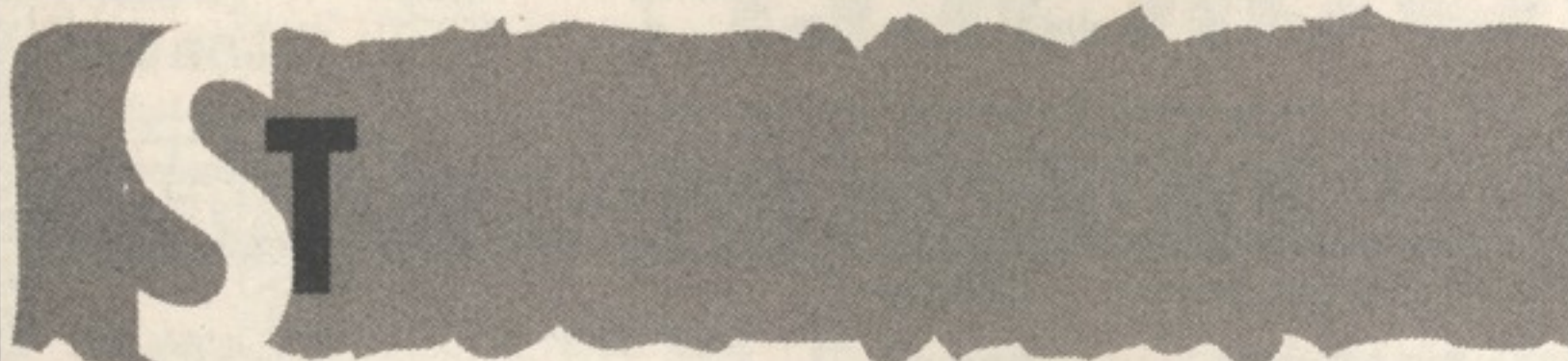
Have you discovered any absolute bargain buys for the Speccy? Help save thousands of fellow skint Spec-chums from economic depression by sending full details of your purchase to me at the usual Express address. And make sure the bargain in question isn't of rear-end of lorry origin.

Robin Alway

```
10 REM HAVOC (48 + 128) ARMOUR
20 CLEAR 3E4: LOAD "" CODE
30 IF PEEK 23296 THEN POKE 65239,84: GO TO 50
40 POKE 65215,20
50 FOR N=28160 TO 28166: READ A: POKE N,A: NEXT N
60 RANDOMIZE USR 65024
70 DATA 175,50,253,151,195,0,139
```

```
10 REM STEEL EAGLE (48 + 128) LIVES
20 CLEAR 3E4: LOAD "" CODE: POKE 65225,183
30 FOR N=64768 TO 34774: READ A: POKE N,A: NEXT N
40 RANDOMIZE USR 65024
50 DATA 175,50,127,128,195,0,128
```

• A couple of top-notch pokes.



CALAMUS TIE UP?

Atari's new laser printer, the SLM605, is to be launched with specially-developed new software from DTP specialists Calamus, according to *ST Report*, a respected American on-line newsletter.

And there's speculation that the tie-up may herald an Atari complete DTP system that may put the ST into pole position in this field. Onward and backward. Incidentally, the aforementioned SLM605 laser printer is smaller, quieter and lighter than its predecessor – and, would you believe, slower – offering just six pages per minute. So much for progress.

DON'T BREATHE A WORD

You may very well have failed to notice a tiny story in *Express 98*, overshadowed as it was by exclusive revelations of Atari's intentions to release the Panther, an ST console. (I'd quibble about the release date though: don't expect to see it this year.)

The teeny-weeny item to which I refer suggests that Atari plans to launch the Jaguar, a mid-range ST positioned between the ST and TT and aimed at low-end DTP and business markets.

According to *Express* the Jaguar

will appear next spring, costing about £750. Now this is considerably more important than it may at first glance appear. For one thing, it's clear that there is a wide gap between the sub-£300 ST and the £2,000-plus TT which is hardly filled by the STE, or the increasingly vulnerable-looking Mega series.

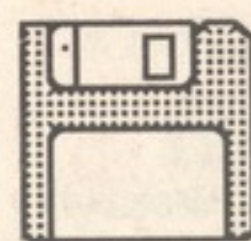
If Atari can get the package right – and that's a big if, given the company's lamentable recent record in matters ST launch-related – two things would follow.

One, the ST would immediately gain from access to "trickle down" versions of Panther professional software, ultimately from TT developments.

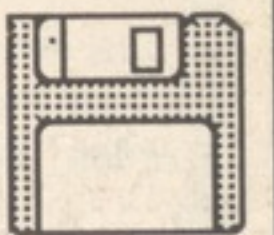
Secondly, the ST's future would not only be secured, but immeasurably enhanced. Just as motor manufacturers like Ford refresh their range by incorporating features of higher models in lower ones, so the ST will gradually get faster and more powerful.

DRIVING PROBLEMS

Of course the question of upgrading brings its own problems. Des Jones of Wolverhampton is just one of the people who've written to me over ➤



DISCS SPECIAL OFFER



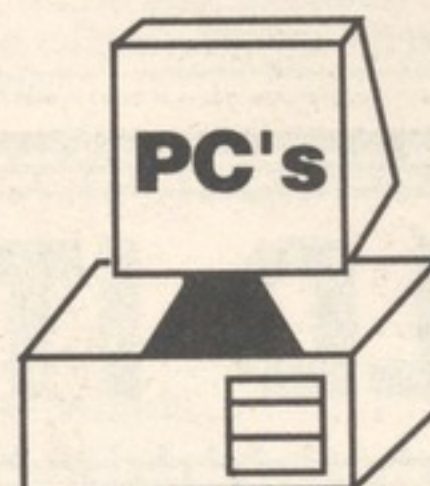
BULK VERBATIM 3.5"
DSDD - 39p each
BRANDED VERBATIM 5.25"
DSDD - 36p each

Above prices include VAT & labels, just add £1.50 for postage and packing.

★ ★ SHAREWARE £1.00 INC. P&P ★ ★

★ **EXTRA DISCOUNTS** ★
(Including VAT + P&P)

VERBATIM BULK 3.5" DSDD	VERBATIM BRANDED 5.25" DSDD
50.....£20.70	50.....£17.00
100.....£39.67	100.....£33.00
250.....£93.15	250.....£81.00
500.....£184.00	500.....£160.00
750.....£270.25	750.....£239.00
1000.....£345.00	1000.....£316.00



OWN BRAND:
Excludes VAT & delivery

All machines come with:

- ★ DELUXE CASE 5 FREE SLOTS
- ★ MS-DOS - V3.3
- ★ TILT MONO MONITOR

- ★ 12 Month warranty
- ★ 102 KEY KEYBOARD (EXCEPT XT)
- ★ 3.5" 720K FLOPPY DRIVE
- ★ 1MB RAM

LOW COST ENTRY PC-XT	£360.00
AT 286-12 AT 20MB	£650.00
386SX 16MHZ 45MB.....	£950.00
386 25MHZ 45MB	£1260.00
486 25MHZ 100MB	£2800.00

★★ NEW MINI VAC FOR COMPUTERS★★
★★ ONLY £7.00 +50P P&P + VAT ★★
SEAL 'N' TYPE COVERS FROM £8.30
SCREEN FILTER 12"/14" £12.50

Clarke Computer Systems, Akther, & Mesh P.C.'s available.
Software and other hardware also available - call for details

Please send cheque with order to:

BUSIBYTE LIMITED

156 Balgore Lane, Gidea Park, Romford, Essex.

Telephone 0708 724845

the past few months with a complaint. "I've been loyal to the ST for four years," he writes, "but I'm beginning to wonder why."

"When I bought my ST it was a single-sided drive machine. Now, of course, things have moved on – which is fine by me. But now some games seem to be coming out as double-sided only, and if I want to get *Operation Stealth*, for instance, I have to buy it in one version, send it off and get it back, presumably some days or weeks later, in one I can use."

"What's worse, Steve" – oer, I think I know what's coming – "I've seen you writing approvingly of this development. Come off it!"

I do sympathise Des, believe me. And yet. When Britain's biggest ST mag, *ST Format*, did a questionnaire earlier this year, it found that only 15 per cent of respondents had a single-sided drive, a number that's presumably continuing to decline as people replace old drives with new ones and – heaven forbid – STs wear out.

Your solution, if you really can't do without the current handful of programs that require a double-sided drive is either to have a new double-sided drive installed, or sell your old ST and buy a new one. Neither is particularly attractive, since both involve extra expense.

But that's progress. As hardware gets cheaper and software more powerful and therefore memory-hungry, it's inevitable and indeed desirable that older machines should be replaced.

The alternative – an ST fading as other, lesser machines overtake it – just

doesn't bear thinking about, does it?

NEW GENLOCK FOR ST

John Russell Innovations of Pittsburgh has launched an internal genlock system for Mega STs and an external one for STEs, as well as an extended colour palette board for the whole ST range which gives access to 4,096 colours.

The price in the States is just \$49.95 (£35), and you can contact John Russell Innovations on 0101 415 458 9577. ST lectures to MacA groups of research students at Stuttgart University are reported to have developed STalk, a hardware AppleTack emulator for the Spectre GCR Macintosh emulator, as well as a Spectre printer driver for Atari's laserprinter.

This opens the way, potentially at least, for the ST to operate fully as a Macintosh replacement for DTP. At less than a quarter of the cost it's now possible to set up a system that can handle the very latest DTP software packages.

The STalk board costs \$330 (£250) from Fearn & Music, Roemerstr 22, D-7000 Stuttgart, West Germany – or call 01149 711 602489.

MORE GADGETS FROM GADGETS

And the genius behind Spectre GCR, Dave Small, has completed version 3 of the Mac emulator, including support for the Mac LaserWriter; compatibility for 68020 and 68030s (like the TT, for instance); formatting Mac disks on the ST; and using PC disks in Mac-mode.

Gadgets by Small can be contacted on 0101 303 791 6098.

BAD NEWS?

I know that some people find the above two items distasteful. "If the ST is so bloomin' wonderful," is the nub or gist of their complaint, "why does it need to pretend to be another computer altogether?"

The answer is sad but true. If you want to do real, high-end, professional DTP, you need Macintosh software. Express, for instance, uses something very expensive called Quark Xpress. What you don't need if you have an ST, is a Mac. All you need is an ST and a Spectre GCR – a far cheaper option. So there.

DATES FOR YOUR DIARY

Atari's "Whistle Stop Tour 1990," an attempt to get away from the usual London bias, approaches rapidly. Microdeal, Mirrosoft and Third Coast will be among those helping Atari put the ST message across at the following locations: October 23, Bristol Temple Meads (see you there); 24, Manchester Victoria; 25, Leeds; 26, Newcastle; 27, Glasgow Central, and 29, Birmingham International.

SOUNDBLASTER BOMBS THE BASS

Siren Software's Soundblaster, a 5-watts per channel stereo amplifier, has been upgraded to include increased bass response and free stereo headphones. Cost is £52.99 from Siren on 061-228 1831.

RETOUCH TOO MUCH

Retouche, you may not be altogether surprised to learn, is a package for

retouching and rastering mono images for importing into your DTP or CAD program.

Offering zooms up to 1,600 per cent, with 256 grey scales, *Retouche* costs £200 from Copycare Graphic Services, 231 Northborough Road, Norbury, London SW16 4TU, or call 081-679 7307.

PLEASE PRAY FOR ELIE KENAN

In America rumours are circulating that Elie Kenan, director of Atari France, is being appointed Director of North American Operations because "he's the guy that's going to transform Atari."

Poor, poor man. Getting rid of Atari's complacency and sheer bone-headedness is reckoned by those in the know to be a task that makes squaring the circle, beating UK inflation, solving the Gulf crisis and rescuing the Soviet Union from economic ruin look a doddle. Remember him in your prayers.

Steve Carey

WAIT!
THERE ARE LOADS
MORE ST STORIES
ON PAGE 32

PHONE
Blandford
(0258) 451347

BUILD IT YOURSELF!

FAX
(0258)
456046

MOTHERBOARDS

- XT TURBO** 12MHz, V20, Small size, takes 256k x 4 DIL. **£62.10**
 - AT TURBO** 12MHz, baby size up to 4M on board. **£158.00**
 - AT TURBO** 16MHz version **£205.00**
 - AT TURBO** with EMS 12MHz, up to 5Mb on board. **£188.00**
 - 386SX ALL-IN-ONE.** 16MHz includes floppy, serial and parallel ports. Takes 1M x 1 **£399.00**
- Memory is available for all these boards. Please call for current prices

CASES AND PSUS

- XT/AT** Three 5.25" and 3.5" slots or disks, flip top lid **£44.50**
- Suitable 180W PSU **£44.85**
- DE-LUXE.** With speed display **£65.00**
- Suitable 200W PSU **£69.00**
- MINI TOWER** with speed display **£72.50**
- Suitable 200W PSU **£69.00**

I/O ADAPTORS

- SERIAL RS232** **£16.10**
- DUAL RS232** **£24.10**
- SERIAL/PARALLEL/GAME**
- Com 1, 2, 3, 4, Par 2, 3 Links **£14.50**
- DUAL SERIAL + PAR + GAME** **£25.00**
- XT SERIAL/PARALLEL/CLOCK/FLOPPY/GAME** **£31.50**

KEYBOARDS

- 101 Key XT/AT switch **£46.00**
- 101 CHERRY XT/AT **£65.50**

PC-DIY BOOK

If you are not sure how to go about building your own PC, then this is for you! 112 pages full of practical tips for £7.95 inclusive. (NO VAT)

DISPLAY ADAPTORS

- HERCULES** plus printer **£39.20**
- DUAL CGA/HERC** **£38.00**
- EGA PLUS** **£99.50**
- VGA 8 bit** **£99.00**
- UNIVERSAL VGA** 8/16 bit VGA, EGA, CGA, MDA, Hercules. Standard plus 800 x 600 plus 1024 x 768 resolution **£137.00**

MONITORS

- MONO 12" green** **£73.00**
- VGA 14" paper white** **£165.60**
- VGA 14" colour** **£389.00**

Remember! All our prices include VAT. Call for FREE catalogue Carriage £2.00 for goods under £40, £9.00 for goods over £40 in total

FLOPPY DRIVES

- 5.25" 360K..... **£66.70**
- 5.25" 1.2M..... **£80.50**
- 3.5" 720K..... **£71.76**
- 3.5" 1.44M..... **£85.56**
- 5.25" cradle for 3.5" drive adaptor and cables..... **£12.50**

DISK CONTROLLERS

UNIVERSAL FLOPPY

- DRIVES 380/1.2/720/1.44 drive AT and 386 systems..... **£24.50**
- XT Hard/Floppy controller **£81.00**
- XT Hard disk controller..... **£65.00**
- AT floppy/hard controller **£107.00**

"SKELETON" SYSTEMS

These consist of motherboard, case and PSU. You add the rest!

- XT 12MHz..... **£155**
- AT 12MHz..... **£250**
- AT 16MHz..... **£305**

BLACKMORE ELECTRONICS LTD

Unit 14A, Sunrise Business Park, Blandford Forum, Dorset DT11 8ST. Telephone Blandford (0258) 451347
WE TAKE ACCESS, VISA AND AMERICAN EXPRESS.

CYBER-TECH DISTRIBUTIONS

Tel: (0453) 544582

**FREE CLOCK RADIO ALARM OR WALKMAN WITH
EVERY NEW SEGA MEGADRIVE SOLD!!!**

CYBER MEGADRIVES CAN RUN BRITISH, AMERICAN AND JAPANESE GAMES!

**SECOND-HAND
AMIGA SOFTWARE!**

**SECOND-HAND
PC ENGINES!**

**SECOND-HAND
ST SOFTWARE!**

**SECOND-HAND
ATAIR LYNX'S**

**SECOND-HAND
MEGADRIVES!**

**SECOND-HAND
PC ENGINE
GAMES!**

**SECOND-HAND
MEGADRIVE
GAMES!**

WHY NOT TRADE-IN, SAVE £££'s!!

Budget Boy Arcade Cabinet.....	£99.95	Megadrive Pal/Scart with Alex Kidd	£164.95
Universal Energiser.....	£179.00	NEC CD-ROM with interface	£299.00
Sega Megadrive Pal or Scart.....	£149.95	Neo-Geo with UK Power Pack.....	£399.95
NEC Super Grafx Pal/Scart	£230.00	FM Towns.....	£2,500.00

MEGADRIVE GAMES

Ghostbusters.....	£35.00	Target Earth.....	£35.00
Thunderforce III.....	£35.00	Curse.....	£35.00
World Cup Soccer.....	£35.00	Darwin 4081	£35.00
Fantasy Star II "8 Meg UK"	£45.00	Forgotten Worlds.....	£30.00
Super Shinobi.....	£35.00	Tatswin	£35.00
Altered Beast.....	£30.00	Thunderblade	£30.00
Ghouls 'n' Ghosts.....	£35.00	Space Harrier II	£30.00
Attacking Shark.....	£35.00	DJ Kid.....	£35.00
Golden Axe	£35.00	Cyberball	£35.00
Afterburner II	£35.00	Super Basketball	£53.00
Rambo III.....	£30.00	Thunderforce II	£30.00
Whip Rush.....	£35.00	Column	£35.00
Herzog Zwei.....	£35.00	Phelious.....	£35.00
Hellfire.....	£35.00	Eswat.....	£35.00
New Zealand Story.....	£35.00	Last Battle	£35.00
Zoom.....	£30.00	Great Harricane.....	£37.00
Moonwalker.....	£35.00	Super Monaco GP.....	£35.00

PC ENGINE GAMES

Don Doko Don.....	£35.00	Be Ball.....	£35.00
Motorbike Kid	£35.00	Victory Run.....	£35.00
Pacland	£29.00	Fantasy Zone	£29.00
R-Type II.....	£35.00	Psycho Chaser	£35.00

●●● STOP PRESS ●●● STOP PRESS ●●●

Splatter House Hand Held Game.....£25

All new items are guaranteed for 1 year, second hand goods carry 6 months guarantee.

**WE BUY AND EXCHANGE SECOND HAND CONSOLES AND COMPUTERS
PHONE OR WRITE WITH DETAILS NOW!!!**

All items subject to availability.

Send cheques/P.O.s to:

**CYBER-TECH DISTRIBUTIONS,
INTERSTATE HOUSE, 40 LONG STREET, DURSLEY, GLOS, GL11 4JB
TELEPHONE (0453) 544582**

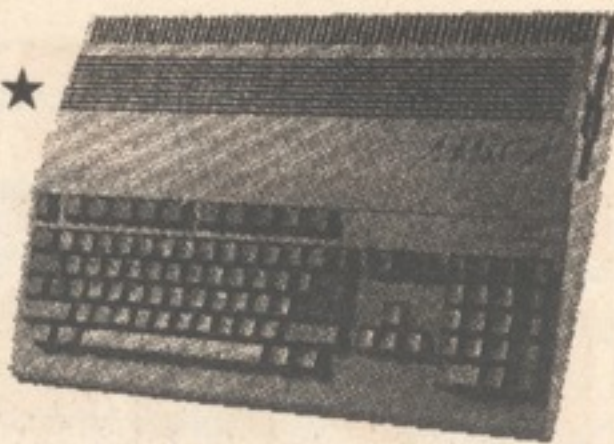
DO IT NOW!!

DO IT NOW!!

AMIGA DEALS

AMIGA 500 STANDARD PACK

- ★ A500 computer ★ 512k RAM ★ 1Mb disk drive ★
- ★ mouse ★ modulator ★
- ★ power supply ★ operation-manuals ★
- ★ workbench disks, etc. ★



ONLY **£339.95**

BATMAN PLUS PACK

- ★ Amiga as in standard pack
- ★ Batman the Movie
- ★ F18 Interceptor
- ★ New Zealand Story
- ★ Deluxe Paint 2
- ★ Megablast joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST

£369.95

FLIGHT OF FANTASY PLUS PACK

- ★ Amiga as in standard pack
- ★ F29 Retaliator
- ★ Rainbow Islands
- ★ Escape from Planet of Robot Monster
- ★ Deluxe Paint II
- ★ Megablast joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST

£369.95

SCREEN "GEMS" PLUS PACK

- ★ Amiga as in standard pack
- ★ Days of Thunder
- ★ Shadow of the Beast II
- ★ Back to the Future Part II
- ★ Knightbreed
- ★ Deluxe Paint II
- ★ Megablast joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST

£369.95

THE ALL NEW... ULTIMATE GAMES PACK

Choose any of the above three packs and add the following:

EXCLUSIVE Dowling Mega Ten Game Pack comprising: RVF Honda, Datastorm, Dungeon Quest, E-Storm, Grand Monster Slam, Kid Gloves, Powerplay, Shufflepuck Cafe, Microprose Soccer, Tower of Babel.

PLUS The Classic Tenstar Pack comprising: Ikari Warriors, Buggy Boy, Wizball, TerrorPods, Barbarian, Thundercats, Art of Chess, Amegas, Insanity Flight, Mercenary.

TOTAL RRP OVER £450

ALL THIS FOR THE UNBEATABLE PRICE OF: **£399.95**

1/2 MEG UPGRADE BOARD

- ★ Uses latest 4 chip design
- ★ Memory on/off switch
- ★ Option of battery backed clock
- ★ Full 12 month guarantee
- ★ New super low price

£29.95

Clock Version

£39.95

3 1/2" HIGH QUALITY DISKS

- Box of 50 **£19.95**
- Box of 100 **£37.95**
- Roll of 1000 labels **£5.99**

- ★ 100% certified ★ Individually wrapped
- ★ "Made in Japan" media ★ Fully guaranteed

CUMANA CAX 354 DISK DRIVE

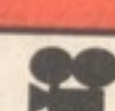
- ★ Latest slimline design
- ★ Quiet, high precision head positioning
- ★ High speed access
- ★ Acknowledged as "the best" (ST Version £69.95)

RRP **£89.95**

£64.95



VIDI-AMIGA SCOOP



What you get..

VIDI-AMIGA (PAL version)

Hardware interface plus softwarerrp **£114.95**

VIDI-CHROME

Upgrade kit enabling you to digitise stunning full colour pictures in secondsrrp **£19.95**

E180 VHS/BETA

High quality video tape to get you goingrrp **£6.95**

ALL THIS FOR THE INCREDIBLE PRICE OF **£99.95**

—X— NEW —X— —X— NEW —X—

MUSIC-X JUNIOR

"provides everything that the average amateur musician could possibly require" Amiga Format N.B. Fully compatible with Music X RRP **£79.95** OUR PRICE **£49.95**

MUSIC-X

Enhanced 1.1 Version
Widely acknowledged as the best music package available. Now with even more enhancements it cannot be beaten
N.B. Be wary of older versions being sold cheaper RRP **£149.95** OUR PRICE **£89.95**

MIDI INTERFACE

Our own beautifully designed product, colour co-ordinated and designed to sit on your Amiga. Features: 1 x in, 1 x thru, 2 x out. Comes complete with midi lead (extras: £2.99)
RRP **£29.95** OUR PRICE **£19.95**

SERIOUS SOFTWARE

SUBJECT	TITLE	RRP	OUR PRICE
ART	Deluxe Paint II	£49.95	£9.95
	Photon Paint II	£79.95	£19.95
	Kindwords II	£49.95	£29.95
WORD PROCESSORS	Protext vers. 5	£149.95	£99.95
	Word Perfect 4.1	£228.85	£169.95
	Superbase Personal 2	£99.95	£29.95
DATABASE	Prodata	£79.95	£59.95
	Superbase Professional	£249.95	£169.95
	Maxiplan	£99.95	£29.95
SPREADSHEET	Superplan	£99.95	£69.95
	VIP Professional	£99.95	£69.95

COMMODORE 1084S OR PHILIPS 8833

- ★ Stereo colour monitor
- ★ Can be used as T.V. with tuner
- ★ Includes cables

£249.95

A590 HARD DRIVE

- ★ Official Commodore hard drive
- ★ Sockets for 2Mb RAM
- ★ Complete with free software pack
- ★ Built-in P.S.U./cooling fan

£359.95

PHILIPS T.V. TUNER

- ★ Converts your 1084S/8833 into a colour T.V.
- ★ Complete with aerial and plug
- ★ Free 1 years on-site maintenance

£69.95

AMIGA/ST MOUSE

- ★ Replacement mouse by contriver
- ★ Free mousemat
- ★ Free mousehouse
- ★ Full 1 year guarantee

RRP **£34.95**

OUR PRICE **£19.95**

COMPUTERS

UNITS 48-50 TYNE ROAD, SANDY, BEDS, SG19 1SA

DOWLING

Bootshop • Amiga • Amiganuts • Disk 728

Viruses are nasty things. Anyone who has been unfortunate enough to catch one will know that. They're destructive little programs that transfer themselves from disk to disk, spreading like a biological virus does between people. After certain conditions have been met, they go off, sometimes doing serious damage to your important programs and data.

Why anyone would wish to release a disk crammed full of viruses must seem puzzling at first. But there is method in this madness and the only way to combat viruses is to find out what they look like and how they work. *Bootshop* is intended for exactly that purpose.

Before you are allowed access to the viruses you are asked a set of questions. This, apparently, is to check whether you are a lamer or not. (A lamer is somebody who doesn't know too much about the ins and outs of the Amiga, and hence could do damage with such a utility.)

There are over 40 viruses to select. Once selected you can examine them. An ASCII dump is presented on screen, you can look through this for tell-tale signs so you can recognise them in future.

Then there is the option to write the virus into the bootblock of a disk. Obviously

THE PD COLUMN

There's a wealth of free software out there which is yours for the price of a disk. This week Adam Waring looks at some of the gems which are out there just waiting to be discovered...

ously this should be done with extreme care and then only to test any virus killers you may have, or may be working on.

It's not all germs without an antidote though. There are a large selection of PD virus killers on the disk too. You can check these out to immunize yourself against viruses that may find their way into your collection.

Bootshop is not a program for the unwary. It is only intended for use by people who know what they're doing. Nor is it intended as a supply of viruses to attack your mates with. Any such misuse of the program is illegal. You have been warned.

There are plenty of other utilities on the disk. Speed up the Amiga's flagging disk drive. Perform a diagnostic test on your machine to make sure it's feeling OK. There's also the latest version of

PUBLIC DOMAIN TOP TEN

What are the best-selling PD disks for your machine? What are people buying and why? Well, now you can find out! Every now and again, we'll be bringing you the top ten best-selling pieces of PD software from one of the best PD libraries around. We kick off with the top selling Amiga software from Amiganuts.

AMIGANUTS TOP TEN

- | | | |
|----|----------|-------------------------------------|
| 1 | Disk 571 | MED by Teijo Kinnunen |
| 2 | Disk 645 | North CC compiler |
| 3 | Disk 639 | Three disk C Manual |
| 4 | Disk 521 | English version of <i>Star Trek</i> |
| 5 | Disk 581 | SID the CLI replacement |
| 6 | Disk 576 | Children's education |
| 7 | Disk 680 | The Word Square solver |
| 8 | Disk 700 | Tetracopy copier disk |
| 9 | Disk 705 | Amibase Professional |
| 10 | Disk 706 | Three games from PH Software |

If you run a PD library and you'd like your top ten to get a mention, send one in next time you send us some software.

Lorenzo's Domain Amiga P.D. & Shareware

A SMALL SELECTION FROM A GREAT COLLECTION

MUSIC

- 101: Definitive Docklands by H.C.C.
- 102: Lorenzo's music utility disk: Rippers and Players galore
- 103: Digital Concert no 4: by Flash Productions
- 104: Lorenzo's musical delight
- 105: Future composer
- 106: Noise Tracker Collection (3 disks)
- 108: Free'd out by the Crusaders
- 109: Flash by Queen: (2 Disks)
- 111: Rave Demo (1 Meg) by H.C.C.
- 113: Dmob Music Demo No 2
- 114: New music demo by H.C.C.

DEMOS, INTROS & MEGADEMOS

- 204: 8 radical demos by Abandon, Cave, Dual Crew, Kefrens, Mahem, Vision etc
- 205: The Dexion Megademo: Cooooool stuff baby
- 206: 5 major demos including: The Revenge Of Babbnassen, Cebit 90 by Red Sector
- 207: 6 of the best including: Follow Me by Red Sector, Celtic, T.P.L. etc
- 208: The CryptoBurners: Megademo 2
- 209: Scoopex: Mental Hangover
- 210: Alcatraz: Megademo 4: (3 disks)
- 211: Outsiders: Acid Demo
- 212: The Kefrens: Megademo 8 (2 disks)
- 213: The Dragons Megademo
- 214: The Silens Megademo
- 215: The Predators Megademo (2 disks)
- 218: The Silents: Fantasy: (2 disks) great pictures
- 219: Bacteria: The Crusaders
- 220: Collection of intros including Trip to Mars and Meg Zarjaz
- 221: Popeye Meets the Beachboys: It's ravin mad pal.
- 222: BudBrain Mega Demo X (2 disks)
- 223: Deathstar Mega Demo (2 disks)
- 224: H.C.C. Toxteth Demo: Hilarious
- 226: Freddy Krugar Rap
- 227: Mindwarp Megademo Vol II
- 228: Robocop demo.

GRAPHICS PICCY'S AND ANIMATION

- 300: Graphic Slideshow by The Dark Wizard
- 301: IFF Picture Show
- 304: Fish 295: Mandel Mountains
- 305: Lorenzo Graphic Utilities

- 306: Newtek Demo Reel 3 (1 Meg) (2 disks)
- 307: Luxo Teenager animation: (1 meg): A very good animation of a desk lamp
- 308: Nightbreed Slideshow by H.C.C.: These are the best pics I've seen yet.
- 309: Forgotten Realms Slideshow by Fraxion
- 311: Viz Slideshow: 12 Great digitised pics from VIZ 1990 Calendar
- 400: Puggs in Space by Dionysus: Great anims and Brill music. Yeehaa
- 403: Agatron Slideshow: More great stuff from Tobias Richter
- 404: Magician & Runner: Very good
- 405: Agatron Anim £25: The Run (1 Meg) Could be his best yet
- 407: Walker 1 Animation (1 meg). Been around for a while. A classic
- 408: Walker 2 Animation (1 meg). Yep! You got it, another classic
- 412: The Education of Cool Cougar (1 meg): Brilliant
- 413: The Probe Sequence
- 414: Space Ace Demo: (1 meg) Animation Sequence from game
- 415: Fillet the Fish Animation by Jester Bros International

- 403: Agatron Slideshow: More great stuff from Tobias Richter
- 404: Magician & Runner: Very good
- 405: Agatron Anim £25: The Run (1 Meg) Could be his best yet
- 407: Walker 1 Animation (1 meg). Been around for a while. A classic
- 408: Walker 2 Animation (1 meg). Yep! You got it, another classic
- 412: The Education of Cool Cougar (1 meg): Brilliant
- 413: The Probe Sequence
- 414: Space Ace Demo: (1 meg) Animation Sequence from game
- 415: Fillet the Fish Animation by Jester Bros International

GENERAL

- 500: Jazzbench: Jazz up your workbench
- 501: Fonts Disk: Loads of fonts
- 502: Wordprocessor
- 503: Spreadsheet
- 504: Database
- 505: Ghostwriter and Rainbowriter: Intro Writers
- 506: Dope Intro Writer
- 507: Virus Killer disk

GAMES

- 700: Lorenzo Games Collection 1: Old faithfuls Invaders etc
- 701: Fish 347: Drip Game: Pure dead brilliant
- 702: Star Trek 3: (2 disks): absolutely fantastic
- 703: Return to Earth
- 704: Blizzard Game
- 705: Monopoly
- 706: Star Trek (1 meg) (2 disks)
- 707: Paranoid: Arkanoid like game with its own screen editor.

**ALL DISKS
99p
each**

ONE DISK FREE WITH EVERY 10 ORDERED PLUS EXTRA SURPRISES

No membership. FREE catalogue with every order. When you choose from Lorenzo's Domain you can be sure of getting the best VIRUS FREE P.D. around. We aim to have your order back in the post within 2 hours. Send your order with a cheque or P.O. and 50p towards p&p to:

LORENZO'S DOMAIN
30 COLQUHOUN SQUARE, HELENSBURGH, G84 8AQ

AMIGANUTS UNITED

OFFICIAL U.K. DISTRIBUTORS
OF THE FANTASTIC T.B.A.G.
DISKS FROM MERLIN U.S.A.
FOR ONLY
£1.80 EACH



LIBRARY PRICES START AT
ONLY £0.50p (WITH DISK)
NO MEMBERSHIP CHARGES
NOW INTO OUR 4th YEAR

- 581: SID V1.6 by Timm Martin, excellent CLI replacement prog. £2.00
- 599: PONTOON. A well written version of this card game by Chris Labrum. £2.00
- 521: ALL NEW STAR TREK, with AUTHORISED English instructions. (2 DISKS) £4.00
- 639: C MANUAL by Anders Bjerin. A three disk set, containing 200 pages of instructions on opening windows/screens/graphics/gadgets/sprites etc. Loads of examples/source progs. (FULL KNOWLEDGE OF THE CLI IS REQUIRED) £6.00
- 649: BUDBRAIN. Excellent TWO DISK MEGADEMO, (FOR ADULTS ONLY) £3.00
- 640: 8 GAMES. The train set game makes this one a MUST for the kids. £2.00
- 658: UTILS with ANIMBRIDGE, (alter anim files), plus many others. £2.00
- 680: WORD SQUARE SOLVER - Solve magazine puzzle squares with this one. £2.00
- 699: FRANTIC FREDDIE A C64 CONVERSION BY BIGNONIA SOFTWARE + TWO DEMOS £2.00
- 700: TETRACOPY An EXCELLENT copier program by the team that did XCOPY £2.50
- 705: AMIBASE PROFESSIONAL An EXCELLENT NEW D/BASE PROG By KEITH GRANT £2.50
- 706: 3 NICE GAMES by PH SOFTWARE. THE TURN, TRICKY AND MARBLE SLIDE £2.50
- 717: MUSIC DISK with 53 tracks lasting OVER 90 MINS! (A MUST) £2.00
- 728: UTILS With BOOT-SHOP, plus latest NOISETRACKER V1.2 and others. £2.50
- 740: MED V1.12 The VERY LATEST version of this FANTASTIC music utility has been re-compiled with a host of new additions, including synth sounds £2.50
- 741: NorthC V1.2 The VERY LATEST from Steve Hawtin, this new set comes on TWO DISKS and is packed with extra progs/examples/advice on bugs. £5.00
- 755: SUPER C COMMANDS DISK FROM TWILIGHT (FAST REPLACEMENT C DIR PROGS) £1.50
- 756: PSUEDO-COP A VERY HARD TO PLAY PD GAME, VERY WELL DONE. £2.00
- 759: The FANTASTIC Crionics Auto-run demo called "NEVERWHERE". £1.50
- 760: Letter writing disk by GRIZZLY, set up and ready for your letters £1.50

AT LAST! HERE IS A NEW DISK THAT ALL CODERS HAVE BEEN WAITING FOR.

ACC-1: The very first issue of a new disk for coders, even if you are new to the Amiga, this is the one to buy if you want to get into assembling. Advice/source etc. (devpak). Edited by MARK MEANY. INTRODUCTORY OFFER £1.50

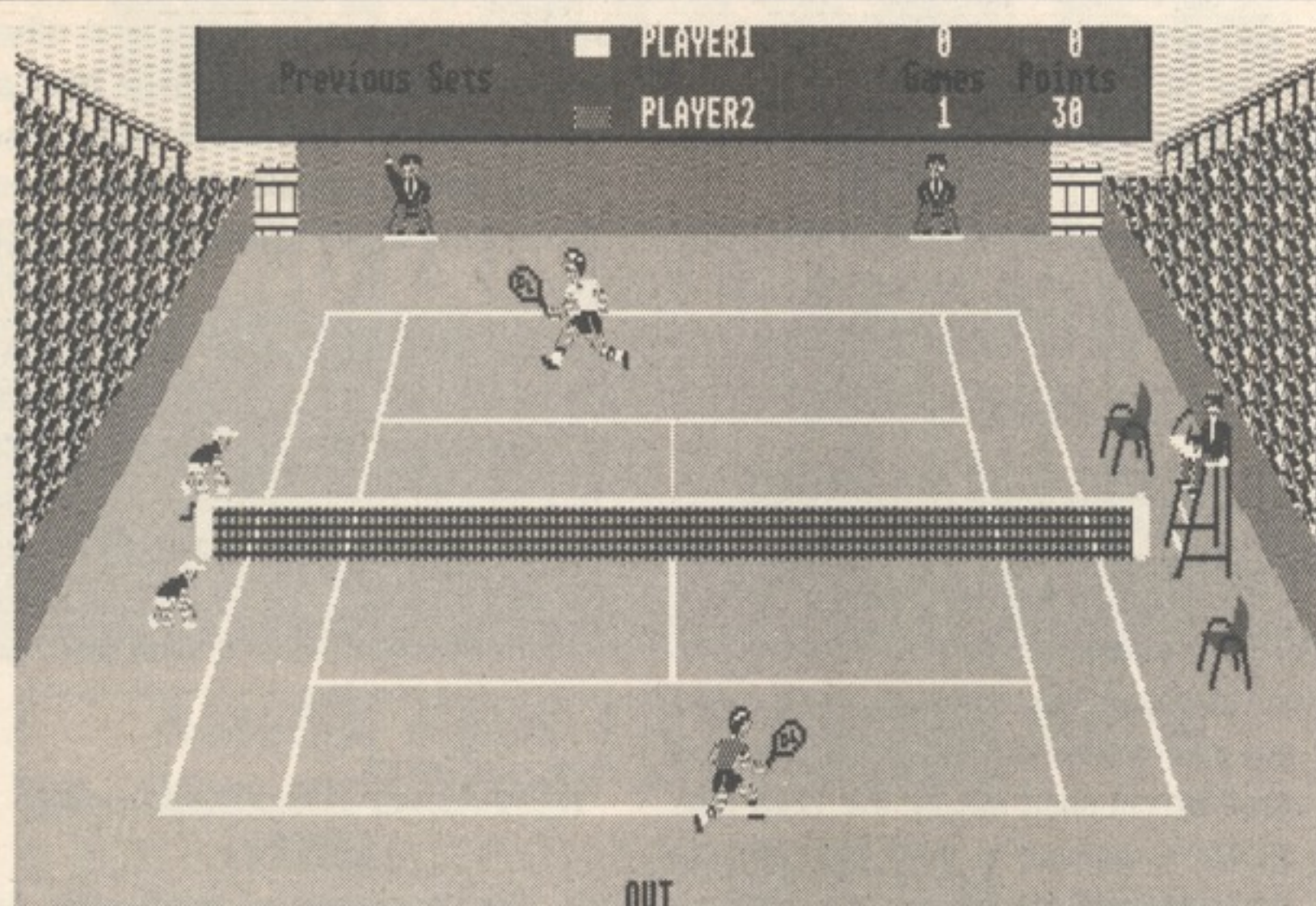
OCTOBER COMPETITION ISSUE CATALOGUE DISK IS NOW AVAILABLE. YOU COULD WIN £100 WORTH OF PROGS. (3 PRIZES). SEND £1.00 AND ASK FOR YOUR COPY NOW.

(ORDERS OVER £20 RECEIVE THE OCTOBER CATALOGUE AND AN AMIGANUTS PEN FREE)

SORRY, TO KEEP OUR PRICES AS LOW AS POSSIBLE, WE DO NOT ACCEPT CREDIT CARDS.

ALL PRICES QUOTED ABOVE INCLUDE RETURN POST AND PACKING

Make cheques/Postal Orders payable to: AMIGANUTS UNITED
169, DALE VALLEY RD, HOLLYBROOK,
SOUTHAMPTON SO1 6QX. PHONE 0703 785680
PLEASE NOTE: Some demos contain language that may be considered offensive.



• Tennis : one to love.

Noisetracker. Great fun to play around with, but a tad complicated to use properly. The lack of a proper DOC file doesn't help!

Tennis • ST • PDQ • GAME 39

Anyone for tennis? Well now you don't have to search in vain for a partner, you don't even have to go outside. So the fact that you haven't got any friends and it's raining needn't spoil your fun.

You see, your ST can provide the perfect match – from the comfort of your armchair. Tennis simulates the sport of log throwing on screen. You can choose to play a human adversary, or a computerised one. All the rules are observed,

and the scoring system is as you'd expect.

There are plenty of options to choose from – there are three levels of difficulty, which selects the proficiency of your computerised opponent. It's better than me in all of them.

The joystick, mouse or keyboard can be used to control your little stick man as he moves around the court. The controls are fairly straightforward. You move around with the logical keys and fire takes a swipe at the ball.

The action is viewed from a pseudo 3D perspective. You watch the match from the perfect TV camera angle. The player at the front has a slightly bigger

area than the one at the back, but they swap sides after each bout, making sure nobody has an unfair advantage.

The best part of the game (to my mind anyway) is the incidental graphics. If the ball goes out of play, little line judges stick their hands up. When the ball hits the net, miniature ball-boys run on and retrieve it!

Oh, and on top of all that, it's quite a good game too!

PD NEWS

If fractals are your thing, and the Amiga is your computer, then you just may be interested in a new PD project. *Amiga Fractal Exchange* – *Ami-FX* for short is a quarterly disk-based exchange of all things fractally. Subjects covered include art, animations, programs; anything in fact as long as it's fractal related. It's freely distributable and any Amiga-using mathematical explorers are welcome to get in touch with Cade Roux, the magazine's editor.

Issue one is available now and comprises three disks containing three animations, two programs and some IFF artwork. Future issues are planned and contributions of re-distributable software are required for them, so if you've done anything of note – get in touch!

Cade also distributes a variety of fractal-related PD and shareware on his own compiled disks.

After all this, I expect you're dying

for the address. Anything to oblige: Cade Roux, Editor, *Amiga Fractal Exchange*, Gonville and Caius College, Cambridge CB2 1TA.

ADVENTUROUS

Maybe you're looking for something slightly more adventurous to boost your CPC's PD collection. A brand new adventure-only library is emerging for the CPC.

Debby Howard, the proprietor of Adventure PD, is on the lookout for more adventures to add to the library. So it could be a good opportunity for budding writers to get their adventures seen by other enthusiasts. Prices per disk are yet to be finalised. ■

WHERE TO GO

PDQ Games, PO Box 38, Eastleigh, Hampshire SO5 5WR. PDQ specialises in games for the ST. It currently has over 500 in stock. To see for yourself send them a large SAE and you'll get a free catalogue in return.

Amiganuts United, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX. Telephone 0703 785680. Nuts about your Amiga? Then call Amiganuts – a library that caters for the Amiga and the Amiga only. Got that? Disks start at £1.50.

NBS

NBS Public Domain
132 Gunville Road, Newport,
Isle Of Wight PO30 5LH
Tel: (0983) 529594 Fax: (0983) 821599

THIS IS THE SMILE OF A PERSON WHO HAS EXPERIENCED
THE N.B.S. PUBLIC DOMAIN SERVICE!



**SPEED
RELIABILITY**

**VALUE
SERVICE**

OUT NOW: PD UPDATE N° 4. Full catalogue and latest reviews.

A SELECTION OF THE LATEST AND GREATEST IN OUR PD LIST

- D146 RSI MEGA DEMO...Still probably the best ever (2 DISKS)
 - D153 PUGGS IN SPACE... Maybe the best ever PD disk.
 - D180 SCOOPEX MENTAL HANGOVER...A fantastic mini-mega!
 - D186 ANARCHY DEMOS...Great flashy demos inc COMA
 - D001 ALCATRAZ MEGA DEMO 4...Great demo collection (3 DISKS)
 - D011 NEWTEC DEMO REEL 3 (1 MEG 2 DISKS)...Very good advert demo!
 - D034 BUDBRAIN MEGADEMO...Terrific graphics & Coma clone (2 DISKS)
 - D037 TOMSOFT DREAM PACK...The best from Thomas Landsburg
 - D040 GIANTS MEGADEMO...packed with great demos (2 DISKS)
 - D048 OPERATION VARK...Micky take of Operation Wolf. Funny
 - D052 ANARCHY NEW DEMOS...Compilation of August releases.
 - D318 FRAXION FANTASY PICTURES...Mythology Pictures (2 DISKS)
 - D326 VIZ SLIDESHOW...Calendar pictureshow from the adult comic
 - D332 GORILLA SKETCH...From Not The 9 O'Clock News (2 DISKS)
 - D510 THE RUN...Tobias Richter's police chase anim. (1 MEG!)
 - D516 WALKER DEMO 2...Classic popular demo (1 MEG)
 - D518 TBAG DISK 41...Includes JUGGETTE animation (1 MEG)
 - D519 RAIDERS FILM ANIM...Digi extract from "The Lost Ark" (1 MEG)
 - D520 FRACTAL FLIGHT...Very clever animation (1 MEG)
 - D528 STAR WARS, THE MOVIE...(EXCLUSIVE) 1 MEG 2 DISKS 2 DRIVES
 - M063 DEPECHE MODE...Get the Micro treatment.
 - M069 D-MOB MUSIC 4...The long awaited music demo (2 DISKS)
 - M070 CRUSADERS BACTERIA...Highly rated, brill music
 - M088 HCC DOCKLANDS DEMO...JMJ at docklands slideshow
 - M115 COMIC STRIP PRESENTS...An original music mix!
 - M126 DARKSTAR MUSIC DISK 9...Best music from recent demos
 - X110 FRAXION HORROR...Absolutely brilliant cartoon horror disk!!
- GAMES**
- G107 STAR TREK...The all new Tobias Richter Game (2 DISKS)
 - G119 PACMAN 87...A good pacman game
 - G123 PD GAMES COMP... Sys, Sky Flight, Bleed, Shoot Out. No F/A
 - G129 EMERALD MINE 3 PROFF...New caves to solve. Addictive or what!
- ALL ABOVE DISKS ONLY £1.35 PLEASE ADD 60p P&P TO TOTAL ORDER. FULL LIST OF UTILITY AND ADULT SELECTION IN OUR LATEST CATALOGUE

3 1/2" DS/DD Guaranteed Sony
DISKS 62p EACH BULK DISCOUNTS!

512K RAM UPGRADES
without clock...£47.95
with clock...£50.00
(3 free demos)

STAR LC10 (MK1 & MK2)
PRINTER RIBBONS
Black £3.30 Colour £5.75

Contriver replacement Mouse
c/w mat and pocket £25.95

Amiga 3.5" external drive
with switch and thru port
£64.95

Cheques/PO payable to N.B.S. Please include 60p post and packing to total order. For catalogue please send 9" x 4" (min) stamped (20p) self addressed envelope. We love European and world orders. Postage: Europe 30p per disk (min £2.00). World 50p per disk (min £3.00).

VAT Reg No. 566539404



ONCE BYTTEN

39 Marling Way
Gravesend
Kent DA12 4DW
Tel: 0474 567964 Fax: 0474 537172
Mon-Sat 10am-8pm Callers by Appointment

PROFEX



LOW COST PRINTERS FROM EPSON & H-P!!

Epson ELP7100 Laser Printer

New 6ppm Laser from Epson. 11 Bitmap & 13 Outline Fonts
H-P/II, Epson GQ, FX, LQ Compatible. 250 Sht Feeder
Small Footprint. Takes up to 157gm paper/card

Our Price £899.00 Inc VAT

Epson GQ5000

Small quantity left of this superb laser printer with 1Mb memory

Our Price £849.00 Inc VAT

H-P Deskjet 500

New model in the Deskjet range. 9 Built-in Fonts. 3ppm. 512k Memory
Three Year Warranty

Our Price £499.00 Inc VAT

H-P Deskjet & Deskjet Plus

Small quantities left of these models
Deskjet 128k With On-site Warranty

Our Price £399.99 Inc VAT

Deskjet Plus 256k With On-Site Warranty

Our Price £479.00 Inc VAT

Great Valley Products (These prices include VAT) !!!

GVP announce a 50Mhz 68030 Accelerator Board for the Amiga 2000
Current pricing starts at £1995 for 50Mhz 68030/68882 with 4Mb RAM 70ns
The same combination with 80Mb Quantum AT drive (19ms) only £2395.00
Other GVP 68030 Accelerator Cards from only £599 for the 28Mhz version.
Other new products this month:

GVP Hard Card II Vanilla with new FAAASTROM™ SCSI DRIVER

20Mb Miniscribe on Hard Card II £329.00
40Mb Quantum 19/11ms on Hard Card II £429.00

GVP Hard Card II + RAM (8Mb Capacity)

40Mb Quantum 19/11ms on card with 8Mb RAM (0k) £499.00
200Mb Maxstor on card with 8Mb RAM (0k fitted) £1199.00
1Mb x8 SIMM (2Mb) £179.00 4Mb £349 8Mb £675.00

(These are of necessity just a few of the GVP product range, many other Hard Drive capacities available. A500 Hard Disk + 4Mb RAM Subsystem. Bare Quantum drives etc.)

AMIGA 2000 v6.2b with 1084s Monitor

Our Price £999.00 Inc VAT

AMIGA 3000 25Mhz 40Mb Quantum

Our Price £2459.00 Inc VAT

AMIGA 3000 25Mhz 105Mb Quantum

Our Price £2869.00 Inc VAT

Profex HD3300 Hard Drive for A500

33Mb 25ms Autobooting Hard Drive for A500. Slimline. Separate PSU. Quiet operation.
Made in W. Germany to a very high standard

Our Price £349.00 Inc VAT

Profex CM14S plus

A superb Monitor for all Amigas. Made in the EEC. The Profex CM14S plus has a Scart socket, Stereo sound and a Tilt & Swivel base.

Our Price £199.95 Inc VAT

PLEASE NOTE

All the above prices (New & Secondhand) include VAT at 15%

Carriage is extra. Courier delivery available, please ring for carriage quote.

PART EXCHANGE IS AVAILABLE AGAINST ALL OF THESE PRODUCTS

WHOLE WIRED WORLD

A new regular trip around the world with Steve Gold

NOTEBOOK PC WARS CONTINUE

If 1990 was the year when pocket PCs arrived, in the shape of the Atari Portfolio and the Poqet PC, 1991 will be the year of the palmtop computer – a machine slightly larger than a pocket PC, but a lot more powerful.

Just out in Japan and due in the US later this month, is a Sony machine at around the \$2,000 mark. For the money you get a 68000-driven machine running Unix with proprietary software. No keyboard comes with the unit, which instead relies on a 'point and click' stylus system. Weird.

Better is NEC's new palmtop which draws heavily on the Japanese giant's experience with the Ultralite series. The palmtop unit tips the scales at four pounds and measures 10 x 7 inches – rather large for a palmtop, but very light as notebook PCs go.

Like the Atari/DIP Portfolio, the as-yet unnamed NEC machine uses RAM and ROM cards – the NEC's are credit-card sized, and come with a suite of business software (including telecoms) supplied in a standard package costing around the £1,000 mark. The machine will ship later this year in Japan, although – with the Ultralite still not out in the UK – who knows when it will sell over here. Over to you NEC.

ATARI TT 030 – 32MHZ

Len Tramiel of Atari has confirmed that the TT030, the 68030 'super ST' machine that's been two years in the making, will have a 32MHz microprocessor fitted as standard. Early versions of the machine seen at shows and in developer's hands had been fitted with a 16MHz microprocessor.

Also announced is that Gem has been rewritten for the TT030. According to Ron Kovacs' *Z-Net* on-line ST newsletter, the new GEM bears a strong resemblance to Gribnif's *Neodesk*. Rick Flashman of Gribnif, a key figure in the design team of *Neodesk*, is quoted by

Z-Net as saying that, while no-one from Gribnif had a hand in designing the new GEM, Atari has publicly acknowledged that *Neodesk* influenced its design concepts.

Features of the TT030's GEM include: customisable, editable icons which can be dragged 'live' across line boundaries, and a much-improved GEM control panel.

While the new GEM will not be adapted for use with the existing ST family of computers, *Z-Net* says that the control panel at least will be ported over to the STE environment. Reports also suggest that the Mega STE series, provisionally scheduled for launch in the spring of next year, will include a full code port of the new GEM, including the new control panel, whose animated head wearing earphones (to show stereo balance) everyone seems to have fallen in love with.

ANTIC READING NEW FLASH

If you're into comms on the ST, then you'll have heard about Antic Software's *Flash* telecoms program. At the recent Glendale Atari show in the US, Antic's senior executives revealed that the company is working on a brand new version – Version 2 – of *Flash*, with almost all the main features recoded from scratch. No shipment date, pricing or specifications as yet, but it's coming "real soon now."

NEW VERSION OF CALAMUS IN THE PIPELINE

Also in the pipeline – but nearer than *Flash 2.0* – is a new version of *Calamus*, the popular desktop publishing package for the ST. New features include a text raster shading system and faster screen writes and general program execution.

Calamus 1.09N will be available by the time you read this column, but now the bad news: for the first time since *Calamus* appeared in late '88, there will

be a charge to upgrade. The charge is quite hefty – \$29.95 – although you do get a lot of program documentation with the software.

Also available with *Calamus 1.09N* is a new library of clip-art files; disk 3 includes a full range of GEM Metafiles (300 in total) and costs \$49.95.

SHORTAGE OF MAC ROMS AHEAD

If you were thinking of getting a Spectre GCR cartridge for your ST to allow you to run Apple Mac software, you'd better get your skates on. While the cartridge itself isn't in short supply, the 128K Mac ROMs – required to drive the cartridge and persuade the ST that it's really an Apple Mac – are in extremely short supply in the US.

The reason is that a character in the US called Dennis Hayes (no relation to the famous modem manufacturer) has pleaded guilty to counterfeiting what amounts to cartloads of the ROMs and selling them on to interested parties. And guess what? The interested parties tended to be Spectre GCR users, who wanted the ROMs to run Apple Mac software. The jigsaw is difficult to piece together, but what with Apple's reluctance to supply the ROMs on their own for obvious reasons, I'd guess that a lot of Spectre GCR users are running their cartridges with ROMs sourced through Hayes.

Although supplies of Mac 128K ROMs have yet to dry up on this side of the Atlantic, watch out for the selling price to edge upwards as demand starts to exceed supply.

DC DESKTOP 1.2 RELEASED

If you can't wait for Atari to get round to updating the desktop software on the ST, then Double Click's *Desktop* package may be worth a look. At \$39.95, version 1.2 (just out) of the software allows you to do things such as place icons directly onto the *Gem* desktop – even documents, as well as introduce a recovery facility to the trash utility.

The program is reported to contain a number of features that users would

pay a lot more for individually in other packages. The on-line 88-page manual gives all of the facilities in fairly terse detail, which perhaps illustrates how many new and improved facilities it offers.

Double Click has its own area on Genie (Double-Click) and Compuserve (GO ATARI IV, area 13) as well as its own BBS on 0101-713-944-0108 where you can learn more about this revitalised package.

And you can even phone them on 0101-713-977-6520.

NEW ATARI TOS ABOUT – BUT BEWARE

ST Report newsletter notes that an alpha test version of TOS, the ST's operating system, has somehow slipped out from Atari's development operation. Version 2 of TOS is, however, incomplete and liable to do nasty things to your disks if installed. If you come across the package, STR advises you to ignore it – it's an unauthorised release. Best to wait for the official launch.

The same can be said of a West German version – TOS 3.01 – that's rumoured to be doing the rounds of the pirate BBSs in the US. This version is said to be fully working although it comes with no guarantees and, unless you speak German, can get very confusing!

SHOPPER US DROPS ST COVERAGE

Computer Shopper US has taken the unusual step of announcing it will not be covering the Atari ST with effect from its December 1990 issue onwards. The reason for the drop in coverage? Editor in Chief Bob Lindstrom says that the ST is a minority interest machine and anyway, the magazine is becoming more oriented towards MS-DOS. Amiga and Apple Mac owners may find the mag going the same way as far as their machines are concerned.

Ron Kovacs' *Z-Net* on-line newsletter reports that coverage of the Amiga and Mac is also under consideration chop-wise. ■

A SECOND PORTABLE ST

News just in from Australia is that Austech Computers is preparing to release its own portable ST called, appropriately enough, *Tracy*. The machine will not be a true portable, but more of a hybrid designed to be plugged into a monitor or TV on the move.

Tucked away inside the ST-style case is a 286-based PC and Apple Mac emulator (the latter using Dave Small's Spectre GCR cartridge) as well as a 40Mb hard disk and 2Mb of RAM.

Sounds interesting – full details in next week's *Express*.

• The ST: getting a new portable.

MICROSMART MAIL ORDER

Tel: 0908 564369

SOUND EXPRESS STEREO SAMPLING HARDWARE AMIGA £29.99

AMIGA MEGA DEALS!!!

FREE HOLIDAY ACCOMMODATION

For two people Voucher with every Machine Purchase.
Resorts available are Florida, Majorca, Malta, and Southern Spain.

AMIGA A500 BAT GAMES PACK

£399 inc VAT & next day courier

BAT Games Pack Includes:

- ★ 10 free Games Inc. Blasteroids, Wizball, Menace, Buggy Boy.
- ★ Amiga A500 512K Keyboard with built in 1 Megabyte Disk Drive
- ★ Free TV Modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ DELUXE PAINT 11 GRAPHICS PACKAGE.
- ★ FREE only just released BATMAN - THE MOVIE games software
- ★ NEW ZEALAND STORY arcade games software.
- ★ F16 INTERCEPTOR - amazing 3D flight simulator software.
- ★ FREE JOYSTICK, MOUSE MAT AND 10 BLANK DISKS.
- ★ AMIGA BASIC Amiga EXTRAS 1.3 Workbench 1.3 PLUS the Amiga Step by Step Tutorial.
- ★ All leads manuals PLUS MOUSE and Mainsplug!

A500 FLIGHT OF FANTASY PACK

£369

Inc VAT and next day courier

Includes:

- ★ F29 Retaliator
- ★ Rainbow Islands
- ★ Deluxe Paint II
- ★ Escape From The Planet Of The Robot Monsters
- ★ Modulator
- ★ Power Supply Unit
- ★ Work Bench 1.3
- ★ Amiga Basic
- ★ Mouse

£419 MICROSMART A500 + PSYGNOSIS PROMOTIONAL PACK

Blood Money, Infestation, Menace, Baal, Chronoquest 1 + 2,
Never Mind
AND EVERYTHING IN THE BATMAN PACK.

£399 MICROSMART SOUND & VISION A500 PACK INCLUDING:

Amiga A500 512K keyboard with 1 Megabyte disk drive. Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV. Deluxe Paint II graphics package. Fantavision - animation package. Sound Express - state of the art + stereo sampling hardware, includes free software. Batman The Movie - games software. New Zealand Story - arcade games software. F-16 Interceptor - amazing flight simulator. Free joystick mouse mat, and 10 blank disks. Amiga Basic, Amiga extras, Workbench 1.3, plus Amiga Step By Step tutorial. All leads and manuals plus mouse and mains plug.

AMIGA A500 CLASS OF THE 1990'S BUSINESS + EDUCATIONAL PACK

£499 inc VAT & next day courier

FEATURES:

- ★ Amiga A500 - TV Modulator
- ★ Midi Interface - Software
- ★ Kind Words 11 word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxplan 500 Spreadsheet
- ★ Amiga Logo BBC Emulator
- ★ Deluxe Paint II
- ★ Mouse Mat 10 Blank Disks and disk wallet

AMIGA 1 MEG BAT GAME PACK

£499 inc VAT and next day courier

- 1 Meg Bat Games Pack Includes:
- ★ Fitted 1 Megabyte Memory Expansion + Real Time Clock Card
 - ★ Everything listed for the A500 Bat Game Pack
 - ★ DRAGONS LAIR 1 MEG MEGADRIVE!

ACCESSORIES

Quickshot II Turbo Joystick.....	9.99
Quickshot III Turbo Joystick.....	9.99
Competition PRO Extra Joystick	12.99
Speedking Autofire Joystick	9.99
Mouse Mats.....	3.99
Contriver Replacement Mouse	18.00
(Mouse Mat & Mouse House)	
Naksha Upgrade Mouse	26.00
(Inc Deluxe Paint, Mouse House, Mouse Mat)	
Half Meg Upgrade inc clock	44.99
Disk Boxes 3.5" hold 40	6.99
Disk Boxes 3.5" hold 80	8.99

PRINTERS

Star LC24 1024 Pin incl lead ST/Amiga	249.00
Star LC10 including lead for ST/Amiga	169.00
Star LC10 colour including interface lead for ST/Amiga	219.00

MONITORS

Commodore Amiga A1084 Stereo Monitor inc lead	£269.00
Phillips CM8833 stereo colour monitor inc lead for ST or Amiga	£259.00

MICROSMART MEGA DEALS !!!

Half Meg Upgrades including clock.....	£44.90
512K Upgrade Inc. Clock with It Came From The Desert.....	£64.99
512K Upgrade Inc. Clock with Gold of the Realm	£49.99
512K Upgrade Inc. Clock with Dragons Lair	£69.99
512K Upgrade Inc. Clock with Space Ace.....	£69.99
512K Upgrade Inc. Clock with Dungeon Master	£69.99
512K Upgrade Inc. Clock with Manhunter	£69.99
Naksha Mouse Inc. Mouse mat, Mouse house	£26.00
Contriver Replacement Mouse	£18.00
Quality Second Disk Drive.....	£69.00
Blank Disks Sony Unbranded with labels	69p each
KAO Unbranded with labels.....	60p each

MICROSMART 24 HR HOTLINE 0908 564369

TITLE	COMP	PRICE
TOTAL COST £:		

Have you ordered from us before? YES NO

Name

Address

Tel No:

Please send this to **Microsmart**, 125 High St,
Stony Stratford, Milton Keynes, MK11 1AT

PRINTERS

All of our printers come with a free cable and have a full 1 year warranty.

Star LC10 Mono (9-pin)	£150.00
Star LC10 Colour (9-pin)	£195.00
Panasonic KXP1124 (24-pin)	£249.00
Panasonic KXP1624	
15" carriage (24-pin)	£399.00
Citizen Swift 24 (24-pin)	£299.00
Swift 24 Colour Kit	£34.95

PRINTER RIBBONS

All of printer ribbons are genuine manufacturer ribbons - we do not sell inferior copies!

1 x LC10 Black Ribbon	£3.50
5 x LC10 Black Ribbons	£16.95
10 x LC10 Black Ribbons	£32.95
1 x LC10 Colour Ribbon	£5.20
5 x LC10 Colour Ribbons	£24.95
10 x LC10 Colour Ribbons	£47.95

Swift 24 Black Ribbons (each)	£3.95
Swift 24 Colour Ribbons (each)	£13.95

1 x Panasonic KXP1124 Ribbon	£8.95
2 x Panasonic KXP1124 Ribbons	£17.50
3 x Panasonic KXP1124 Ribbons	£25.00
5 x Panasonic KXP1124 Ribbons	£39.99
10 x Panasonic KXP1124 Ribbons	£69.99

ATARI LYNX

Lynx Games Machine (with free California Games)	£149.00
Game Cards :	
Blue Lightning	£19.99
Chips Challenge	£19.99
Electrocop	£19.99
Gates of Zendocon	£19.99
Gauntlet III	£23.50

IBM PC COMPUTERS

Phone today for a quote on the latest PC compatible machines (all configurations): AMSTRAD, COMMODORE, ATARI, GOLDSTAR etc etc
AMAZING PRICES !

**REMEMBER
ALL OF OUR PRICES
INCLUDE DELIVERY
AND VAT - WE
DON'T HAVE
HIDDEN PRICES
LIKE CERTAIN
OTHER MAIL ORDER
COMPANIES ...**

MICE

Contriver - ST compatible	£18.95
Contriver - Amiga compatible	£19.95
Contriver - PC compatible	£23.50
Naksha - ST/Amiga/Amstrad PC	£34.99
1352 - Amiga/Commodore PC	£34.49

ATARI PORTFOLIO

Portfolio Pocket PC	£179.95
Parallel Interface + cable	£39.95
32K Memory card	£46.75
64K Memory card	£82.95
128K Memory card	£119.00
Finance Card software	£47.50
PC Application software	£47.50
Utilities Card software	£47.50
Serial RS-232 Interface	£56.95
Super Memory Expander	£164.95
Portfolio Card Drive	£67.50
Mains Power Adaptor	£11.99

PHILIPS 8833 COLOUR MONITOR

All of our Philips 8833 colour monitors come with 12 months on-site warranty and are supplied with a cable of your choice :

8833 + STFM cable	£249.00
8833 + STE cable	£249.00
8833 + Amiga cable	£249.00

ATARI ST ACCESSORIES

SM124 Mono Monitor	£99.99
Megafile 30 Hard Disk	£449.95
Megafile 60 Hard Disk	£619.95
SLM804 Laser Printer	£1115.00
SLM804 Toner Cartridge	£37.50
SLM804 Replacement Drum	£159.99
Cumana 1 MB External Drive	£89.95
Roctec 1 MB External Drive	£75.00
Forget-Me-Clock II Card	£24.95
ST Monitor Switch Box	£14.95
STE Stereo scart lead	£12.99
STFM standard scart lead	£7.95
Replacement STFM/E PSU	£99.95
Vidi ST Video Digitiser	£86.99
Atari CX40 Joystick	£4.95
Joystick/Mouse extension lead	£4.75
Replacement Mouse lead	£3.75
Standard Parallel Lead	£5.95
14 Pin Din Plug (ST disk drive)	£2.25
14 Pin Din Socket (ST disk drive)	£2.95
13 Pin Din Plug (ST monitor)	£1.95

AMIGA A500 ACCESSORIES

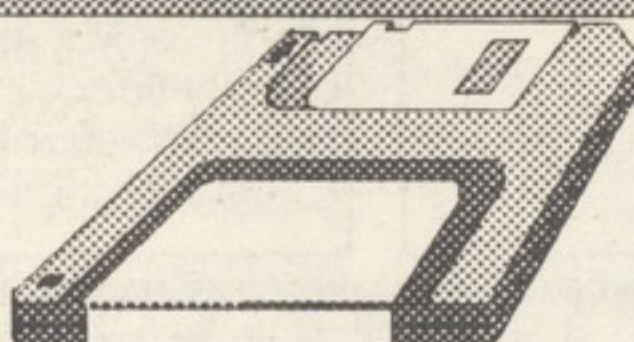
512K Ram Upgrade with clock	£39.95
A590 20Mb Hard Disk drive	£369.95
Cumana external disk drive	£75.00
Roctec external disk drive	£73.00
Vidi Amiga video digitiser	£99.99
Amiga Stereo Scart Lead	£9.99
Mouse Mat	£3.50

AMIGA / ST SOFTWARE

Power Pack software (ST)	£34.99
Hyper Pack software (ST)	£14.95
Discovery Pack software (ST)	£19.95
Timeworks DTP (ST)	£69.99
First Word Plus (ST)	£56.99
Photon Paint version 1 (Amiga)	£9.95
Photon Paint version 2 (Amiga)	£39.95
Deluxe Paint version 3 (Amiga)	£59.95
AMIGA PACK 1 : Batman/N.Z.Story/ Interceptor/DPaint 2	£19.95
AMIGA PACK 2 : F29/R.Bow Island/ Robot Monst/DPaint 2	£19.95

BLANK DISKS

All of our blank disks are guaranteed and supplied with labels. Our 3.5" Unbranded disks are either KAO or Sony. All Sony Branded disks are boxed and supplied with labels (all Sony 5.25" disks are supplied with write protect tabs). All disk prices include vat and delivery.



QUANTITY	10	20	30	50	100	200	250	300
UNBRANDED 3.5" DS/DD	5.99	10.99	15.99	25.99	49.00	84.99	99.00	119.99
SONY BRANDED 3.5" 2DD	9.50	18.50	26.50	42.00	80.00	175.00	210.00	245.00
UNBRANDED 3.5" HD	14.95	27.95	39.95	59.99	115.00	225.00	279.95	330.00
SONY BRANDED 3.5" HDD	27.50	53.00	77.00	120.00	235.00	460.00	570.00	680.00
UNBRANDED 5.25" 360K	3.25	6.25	9.25	14.95	27.50	52.50	65.00	77.50
SONY BRANDED 5.25" 2D	7.95	15.50	22.50	36.99	69.99	135.00	165.00	189.99
SONY BRANDED 5.25" HDD	14.99	24.99	34.99	56.99	99.99	195.00	235.00	275.00

ST MIDI

C-Lab Creator SL V3.0

C-Lab Notator SL V3.0

C-Lab Alpha Notator

C-Lab Unitor

C-Lab Export

Steinberg Cubeat V1

Steinberg Cubase V1.5

Steinberg Voice Editors

Dr T Tiger Cub

other packages available.

CALL NOW FOR PRICES !

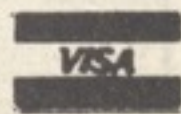
RING TODAY -
LATEST
VERSIONS IN
STOCK AT
AMAZING
PRICES!

BEST PRICES (Dept NCE), Unit A,
Grafton Place, Worthing, West



Sussex. BN11 1QX

Tel : (0903) 700714



SEE OPPOSITE PAGE FOR MORE DETAILS

TELESALES - 10 am till 12 midnight

ANSWERPHONE - 12 midnight till 10 am

ATARI STE

520STE 512K RAM	£329.00
520STE 1MB RAM	£359.00
520STE 2MB RAM	£439.00
520STE 4MB RAM	£549.00

All STE computers now come with 6 software titles:

First Basic, Music Maker and Organiser.
Hyper Paint, Hyper Draw and Borodino.

All STE computers are checked prior to despatch and all prices include VAT and delivery by courier.

STE RAM KITS

DIY 1 KIT - 520STE to 1MB (2 x 256K cards)	£39.99
DIY 2 KIT - 520/1040 to 2MB (2 x 1MB cards)	£119.00
DIY 4 KIT - 520/1040 to 4MB (4 x 1MB cards)	£235.00

All RAM prices include VAT and delivery.

SM124 HI-RES MONOCHROME MONITOR

THE ATARI SM124 HIGH RESOLUTION MONOCHROME MONITOR is recommended for all serious applications on the Atari STFM / STE. For example: Word Processing, MIDI, DTP, CAD etc etc. Resolution: 640 x 400 **£ 99.99** including VAT and delivery.

NEW! ATARI STE TURBO PACK

- * Atari 520STE computer, mouse + cables etc
- * STOS Games Creator, basic, paint package & music package
- * 8 top selling games (Indiana Jones & the Last Crusade, Impossible Mission II, Human Killing Machine, Super Cycle, Outrun, Dragons Breath, Anarchy and Blood Money)
- * available in 0.5MB, 1MB, 2MB or 4MB RAM

AVAILABLE NOW:

520STE 0.5MB TURBO PACK	£375.00
520STE 1MB TURBO PACK	£399.00
520STE 2MB TURBO PACK	£479.00
520STE 4MB TURBO PACK	£579.00

including vat and delivery

ATARI STFM POWER PACK

- * Atari 520STFM computer
- * 20 top selling games (Afterburner, R-Type, Gauntlet 2, Super Hang On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray)
- * Mouse, Joystick and instructions

ALL THIS FOR ONLY

£299.00

including vat and delivery

REMEMBER : ALL PRICES INCLUDE DELIVERY + VAT

AMIGA A500

all of the packs listed opposite come with:

- * Amiga A500 computer + mouse etc
- * DELUXE PAINT 2 graphics software

ALL THIS FOR ONLY

£ 365.00

inc vat and courier delivery

A500 BASE PACK

- * Commodore Amiga A500 computer
- * Modulator, Mouse + instructions

ALL THIS FOR ONLY

£ 339.00

BATMAN PACK

Batman, New Zealand Story and F18 Interceptor

or FLIGHT OF FANTASY

Robot Monsters, Rainbow Island and F29

or SCREEN GEMS PACK

Days of Thunder, Back to the Future II, Nightbreed and Shadow of the Beast II

CLASS OF THE 90's PACK

CALL FOR DETAILS - OUR PRICE:

£ 529.00

inc vat and courier delivery

ST GAMES ONLY £1.75 EACH ?

Afterburner, R-Type, Gauntlet 2, Super Hang-On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray.

All of the above games are available in the Power Pack Software pack for only -

£34.99

- that's less than £1.75 each !

(requires double-sided internal disk drive)

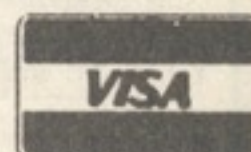
BEST PRICES

(DEPT NCE), UNIT A, GRAFTON PLACE, WORTHING, WEST SUSSEX. BN11 1QX

(0903) 700714

TELESALES - 10am till 12 midnight

ANSWERPHONE - 12 midnight till 10 am



All prices include VAT and UK delivery unless otherwise stated. All prices / specifications / special offers are subject to change without notice. Goods usually despatched same day as cleared payment is received.

Please make cheques/P.O's out to BEST PRICES. Mail order only, callers and collections only by prior arrangement with us. Thank You.

ADD £5.00 INC VAT FOR NEXT WORKING DAY DELIVERY, ADD £25.00 INC VAT FOR SATURDAY DELIVERY
ADD £12.50 FOR AM WEEKDAY DELIVERY, ADD £20.00 FOR 72HR COURIER DELIVERY TO NIRELAND

Your weekly guide to the hundreds of bulletin boards and user groups which are waiting to hear from you. This week's featured bulletin board is Arkham BBS. And if you run a board, don't forget to write!

PSION ORGANISER - Mike O'Regan, IPSO,
130 Stapleford Ln, Beeston, Nottingham NG9

BBS

CHIBA CITY. For Amiga and IBM. D McIntosh 3 Bank Street, Whitburn, W Lothian EH47 ODU. Tel: 0501 44262

LOCH LOMOND BBS. The new board in Scotland for the PC, Atari and Amiga. Echomail, running Telegard 2.5 over 200 GfIs, V22 and V22bis. On-line 24 hrs Call 0389 55762

AFTER HOURS BBS. Freenet & Eiconet Echomail. V22, V2bis. 24hrs Call 0276 52096.

MACH II BBS. Speeds up to 2400. One of the best in Glos. Plenty of files and on-line help. 24 hrs. Call 0242 260 685

OPEN ACCESS BBS On-line 6pm til 8am Mon-Fri and 24 hours weekends. Give our friendly board a call now on 081-427 3974.

THE SATURN BB 10Mb of software on-line. Sub-boards and much more. Phone 0282-23570 after 10.30pm, or see Prestel 811220044 for info or MBX 219998996.

S-A-C BBS V21, V22, V23, V22 bis for Amiga and PC. Don't miss out - phone now on 0242-260685. On-line 24 hours

BARNEY'S RUBBLE BBS Birmingham-based, 24 hours 300-2400 baud. MNP5 Amiga, IBM PC. Programmers, Penpal, Comms sections. 100Mb downloads plus 30 local and echo conferences. Fidonet (2:253/153) Call 021-441 1801.

SOUTH Lincs BBS. On-line for news, files, On-line mags and a real club atmosphere. Fun starts on October 15. 11 PM to 6 AM, Monday to Friday. Call 0780 63954.

SCABBS. 22bis. Call 0909 479080

ALTERNATIVE SOLUTION BBS. Telephone: 0742 325232. V21, V22, V22 bis, 8N1, Free. 24 hours. Mainly PC based, but hoping to expand to include Amiga, Atari, BBC downloads. Already specialised areas for these machines. 'Babble' has stacks of downloads, on-line games, areas for students etc, incl foreign languages. Runs British BBS software. Eazihost.

BATH BBS the only Atari-based multi-line board in the UK. Telephone: 0225 835841/840060. Chat rooms, downloads, games, the Goodmans gateway, and now the ST Format SIG.

BABBLE BBS. New and on-line now for your entertainment. Loads of on-line games and downloads. V21, V22, V22bis. 24hours. Call 0532 785964

MACH II BBS. The best in Glos for the Amiga. On-Line 24 hrs. Growing fast but needs your support. Loads of files and on-line help. V21, V22, V22bis. Call 0242 260685

CARGO BBS. Running Eazi-most. Open (weekends) 1800 to 0830 (weekends) 24 hours. V21, V22, V22bis. Don't delay, connect today. Call 0420 475462

IMAGEVIEW of Leeds is now defunct

01 For Amiga	071-377 1358	V21/22/22b/23
061 Pc Support	061-443 1529	V21/22/22b/23
4/abc	0460 64511	V21
Above Board	0254 682862	Hst
Absolute Zero Qbbs	081-741 7233	V21/22/22b/23
Advance Opus Hull	0482 28367	V21/22/22b/23
Airtel	0342 717800	V21/22/22b
Aix-386	0905 52536	V21/22/22b/23
Aji Electronics	0452 309125	V21/22/23/23v
Alan Solomon's Bb	0494 724946	V21/22/22b/23

Alchemist	0666 504597	
Alma Bbs	0787 277745	
Alternate Reality	0352 856626	V21/22/22b/23
Alternative Reality	0959 76695	V21/23/23v
Alternative V/data	081-761 8220	V21/23/23v
Amiga Board	0268 510495	V22/22b/23
Amiga Connection	081-981 9289	V21/23
Amiga Shack	0737 361178	V21/22/22b/23
Amiga South-east	0293 28464	V21/22/22b/23
Amink Bbs	021-778 5868	V21/22/22b/23
Amtech Support	0202 294716	V21/22/22b
Andromeda Galaxy	0243 379430	V21/22/22b/23
Apple Crackers	0268 781318	V21/22/23
	0268 780724	V22/22b

Apricot Tech Support	021-456 2402	V21/22/22b/23
	021-456 2401	V21/22/22b
Arcoport	0252 737065	V21/23
Arena	0625 539063	V21/22/22b/23
Argus Project	091-490 0327	V21/22/22b/23
Arkham Bbs	081-952 5128	V21/22/22b/23
Aspects	061-792 0260	V21/22/22b/23
Atavachron	0480 412884	V23v
Attic	081-308 0466	V22/22b
Auld Reekie	031-663 9924	V21/22/22b/23
Avalon Northeast	091-564 0009	V21/22/22b
Babbs Tower	0394 276306	V21/22/22b/23
Banet Board	081-783 1151	V21/22/22b/23
Bar	0904 642560	V21/23/23v
Barnabas	0708 852526	Hst
Barney's Rubble	021-441 1801	V21/22/22b/23
Basingstoke Opus	0256 728331	V21/22/22b/23
Bbs09	0705 736025	Hst
Bbz	081-663 3732	V21/22/22b/23
Beeb-tec	0472 276476	V23v
Betelgeuse 5	0463 231339	
Beyond Belief	0642 787898	V21/23

Big Bang Burger Bar	081-420 6356	V21/22/22b/23
Bike Shop	0705 827764	V22/22b
Bitmap Brothers	0245 413728	V21/22/22b/23
Bixbox	0634 200931	V21/22/22b
Blackpool College	0253 57941	V21/22/22b/23
Blindin' Bbs	01 764-0954	V21/23
Blitter	0292 671638	Hst
Body Matters	071-603 7581	V21/22/22b/23
Boggin	0532 483563	V23/23v
Boog Bb	0252 626233	V21/22/22b/23
Boroughbridge Qbbs	0423 324532	V21/22/22b/23
Bradford Bb	0274 480452	V21/23/23v
Braindead Opus	0823 254352	V21/22/22b/23
Breakthrough	051-734 5817	V21/22/22b/23
Brown Bag	071-404 0897	V21/22/22b
Brunel Bbs	0272 584352	V21/22/23
Buz Board	081-202 9175	V21/22/22b
Buzby's Grapevine	041-762 2000	Hst
Byte Back!	081-959 8105	V23
Campus Ros	0223 357445	V21/22/22b/23
Castle Bbs	0276 691872	V21/22/22b/23
Cats Board	0628 824852	Hst
Catweazle	081-428 9476	V21/22/22b
Ccl4	0482 655798	V23/23v
Central Bbs	021-711 1451	V21/22/22b/23
Chase Wildcat U.g.	0543 871562	V21/22/22b/23
Chequers	0622 891308	V21/23
Chipboard	0532 320225	V21/23/23v
Chronos' Lair	021-744 5561	V21/22/22b/23
Cix	081-399 5252	V21/22/22b/23
Clapham Junction	0234 64261	V21/22/22b/23
Cliff's Corner	0502 518274	V21/22/22b/23
Club 1512	081-204 8755	Hst
Co-op Board	081-316 6488	V21/22/22b/23
Co-op Board (c/s)	061-832 1961	V21/22/22b/23
Co-op Board (nic)	0509 826339	V21/22/22b/23
Co-op B'Mouth	0202 532701	V22/22b
Co-op P'Mouth	0705 754851	V21/23
Codeomatic Bbs	0472 250690	V21/22/22b/23
Communitel Demo	081-968 7402	V23v
Compass!!	0942 896661	
C'center Opus	071-928 2005	V21/22/22b
Computers 4 Christ	0926 428294	V21/22/22b/23
Connection	071-978 8540	
Connections	081-903 1309	V21/23/23v
Connex	071-431 3922	Hst
Consett Forum	0207 506179	Hst
Corby Town Opus	0536 205113	V21/22/22b/23
Corrwall Gate Opus	0752 848806	V21/23
Cp/m User Group	0753 868196	V21/22/22b/23
Critical Mass Bbs	0727 56939	V23/23v
Crown Green	071-245 1512	V21/22/22b/23
Crystal Tower	081-886 2813	V21/22/22b/23
Cure	0604 27865	Hst
Cv Database Bb	0427 810211	V22/22b
Cymrutel	0492 49194	
Cynotel	081-346 2816	V23v
D.I.e.	061-434 9907	V21/22/22b/23
Dabbs	0846 693067	V21/22/22b
Dambusters	0203 333195	V21
Dark Crystal	081-207 2989	Hst
Dark Halo	0392 434477	Hst
Dark Side	0446 33729	V21
Darkhaven	0604 413716	V21/22/22b/23
Data Network	081-478 5464	V21/22/22b/23
Datasel/Wanderland	081-680 5330	V23
Datasoft Opus Bbs	0460 54615	V21/22/22b/23
Datatrade Qbbs	0536 725180	Hst
Dbase User Group	0532 842213	V21/22/22b
Doe Board	0296 88165	V21/22/22b
Dcs	081-879 7578	V21/22/22b
Deep Thought	0634 683696	Hst/V23
Deeply Wonderful	0455 557261	
Desert	0244 550332	V21/22/22b/23
Diamond Opus	0791 86504	Hst/V23
Diggerel #1	0925 411265	V21/22/22b/23
Digital Matrix	021-705 5187	V21/22/22b/23
Direct-line 1	081-841 1847	V21/22/22b/23
Direct-line 2	081-842 2030	V21/22/22b
Domain Bbs	081-773 2422	V22/22b
Dragon's Tower	081-202 0709	V21/22/22b
Dunedin Blackhole	031-669 2974	

Dwarfen Realm	0376 501036	V23v
Ebbs-1	0274 541156	V21/23/23v
Eddie's Bbs	0635 71324	V21/22/22b/23
Empirical Research	0543 675158	V21/22/22b/23
Empryon	0792 580781	V21/22/22b/23
End To End	0376 84644	V21/22/22b/23
End Zone	0524 752245	V21/22/22b/23
Engineers Workbnch	051-327 7036	V21/22/22b
Eureka Gateways	0603 250689	V23/23v
Eureka li	081-683 0629	V21/22/22b/23
Exchange S/w	0767 5051	V21/22/22b/23
Eye-2	0525 715789	V21/22/22b/23
Fal Opus	0736 794827	V21/23
Falcon Bbs	081-527 4165	V21/22/22b/23
Family Skeletons	0480 812097	V22b
Fen Tiger	0954 210692 Rb	V23v
Fido UK1	0734 713909	V22/22b
Firm	0273 513872	V23v
Flight Path	081-759 1957	V22/22b
Focus International	0905 795002	
Focus Tobs	0303 42690	Hst
Focus UK	0905 774477	V21/22/22b/23
Forth View	031-660 3474	V21/22/22b/23
Forum-80 Hull	0482 859169	V21
Fox's Den	0689 27085	V21/22/22b/23
Free Net One	0767 51972	V21/22/22b/23
Freelance Lynx	0480 406261	V21/22/22b/23
Friday The 13th	0642 224833	V21/22/22b/23
Fuzzy Logic	0634 200707	V21/22/22b
Gabbs	0705 524805	V21/22/22b/23
Gallery Qbbs	081-847 2795	V21/22/22b
Game Over	0752 848070	V21/22/22b/23
Games Online	0273 699200	
Gaslamp	0706 358331	V21/22/22b/23
Gaugonzola Bbs	0453 511112	24hrs/V21/22/22b
Gnome At Home	081-688 8894	V23v
Gods	081-994 9119	V21/23
Golly!	0734 320812	V21/22/22b/23
Goobtel	0602 706307	V21/23
Good Life	081-541 0187	Hst
Gopherit's Box	061-320-3208	V21/22/23
Gourmet	0474 536654	V21/22/22b
Grainstore	0905 770198	V21/22/22b
Grenadier	0825 762803	V21/22/22b
Hacker's Delight	0702 523853	V21/22/23
Halfwits Bbs	0272 340310	V22/22b
Hamnet	0482 465150	V21
Harlequin	061-945 3612	V21/22/22b/23
Hastings Bbs	0424 717919	V21/22/22b/23
Hawk's Castle	0344 411621	Hst
Hazzard Bb	071-737 0505	V21/22/22b/23
Health-data	081-986 4360	V23v
Heartbeat	0734 352032	
Hilary's Board	0277 233468	V21/23
Hot-air Opus	0579 70347	V21/22/22b
Humber Bridge	0482 850785	V21/22/23
Ichthus (Trinity 3)	0734 461466	V21/22/22b/23
	0903 700771	V21/22/22b/23
Index Linked	0227 770403	V21/22/22b
Intel Ace	0832 73003	V23v
Islington Bbs	071-704 0760	Hst
	071-226 1248	V21/22/22b/23

It Contacts	0482 500286	
Jabulon Bb	0254 59352	V21/23/23v
Jersey Bbs	0534 37779	V21/22/22b/23
Jersey Opus	0534 39389	V21/22/22b/23
Jocks Away!	031-225 5368	V21/22/22b/23
Jolly Fisherman	0754 67796	V21/22/22b/23
Jolly Roger	081-742 1640	V21/22/22b/23
Jusav	0324 32414	V21/23
Just The Place	0705 258694	Hst
K-wood	0608 83458	Hst
Kashmir's Bbs	0472 347882	V21/22/22b/23
Kernow Bb	0209 821670	V21/22/22b/23
Key-board	0908 668398	Hst
Keydata	081-676 0072	V23v
Kidlington Bbs	0865 56703	V21/22/22b
King Of The Castle	0233 620228	V21/22/23
Kirklees Opus	0484 665415	V21/22/22b/23
Kleopatras' Pyramid	0602 384281	V21/23/23v
Komputer Knidge	0844 274066	V21/22/22b/23
Kybernesis	081-673 7294	V21/22/22b/23
Labyrinth	051-724 4458	V21/23
Lamplight Qbbs	0705 811531	V21/22/22b/23
Laser Tobs	0532 438430	V21/22/22b
Lau's Ql Bb	081-751 6096 Rb	V23v
Lightfinger's Place	0202 485723	V21/22/22b/23
Linelight	0580 212043	V23v
Linux Bbs	0522 511277	V21/22/22b/23
Liquorice Allsorts	0633 279985	
Liverpool Mailbox	051-428 8924	V21/22/22b/23
Liverpool Ros	051-931 4271	V21/22/23
Loft	0442 230461	V21/22/22b/23
Log On In Tynedale	0434 606639	V21/22/22b/23
London Bb	081-455 660	

ATARI ST ★ ATARI ST ★ ATARI ST ★ ATARI ST ★ ATARI

A brilliant offer for readers of **New Computer Express!****Devpac ST 2****FROM HISOFT ONLY £44.95**

Devpac ST Version 2 is widely regarded as the most powerful assembly language development system for the Atari ST. It incorporates a debugger, stand-alone assembler and a fast linker

IT INCLUDES:

► **GenST** Assembler is a high-performance, full-featured, two-pass Motorola standard macro assembler at up to 75,000 lines per minute. It has multiple modules and sections, repeat loops and macro calls that maybe nested as deeply as memory allows.

► **MonST** Debugger is an advanced symbolic monitor, debugger and disassembler.

Now in addition it can offer Multiple window display, full expression evaluator, up to 22 significant characters in symbols, viewing of source files and conditional breakpoints.

► **Example Files** of a wide variety including a full GEM type windowing application and an example desk accessory.

The package comes complete with an extensive ring-bound manual plus notes on the various operating system levels and debugging strategies.

Order now by phone from the NCE mail order service or send the coupon to our FREEPOST address.

HOTLINE NUMBER 0458 740111**DevpacST 2**

version 2

**Complete Assembler/Debugger System
for the Atari ST Computers**

**SAVE
£15**

**Yes, I would like to order a copy of
Devpac ST 2**

Name Address Tel No

**I would like to pay by Access Visa
Cheque PO**

Please debit my credit card

No Expiry Date Tel. No

**Send & make cheques payable to
Future Publishing, FREEPOST, The Old
Barn, SOMERTON, Somerset. TA11 7BR**

LAUNCH into the nineties, a new decade of **BARGAINS!!**

ALL PRICES INCLUDE V.A.T.

OFFER 1:

Double Sided 31/2" Disks, Individually Wrapped, 880k 135 tpi, ideal for Amiga, ST, etc., Blue, Pin No., made in Japan, 100% Error Free. 2 for 1 Warranty or money back.

10 x 3.5"	£4.90
25 x 3.5"	£11.95
50 x 3.5"	£20.50
100 x 3.5"	£38.00
250 x 3.5"	£90.00
500 x 3.5"	£169.00
1,000 x 3.5"	£310.00
Inc. labels	

**Amiga 512K
upgrade only
£34.95 inc VAT**

OFFER 4: High Density Disks.

when only the Very Best will do.
5.25" HD 1.6mb
for IBM, AT, Etc.

10 x 5.25" HD	£4.60	10 x 3.5" HD	£11.00
25 x 5.25" HD	£11.00	25 x 3.5" HD	£27.25
50 x 5.25" HD	£21.50	50 x 3.5" HD	£45.00
100 x 5.25" HD	£42.00	100 x 3.5" HD	£89.50
250 x 5.25" HD	£100.00	250 x 3.5" HD	£169.50
500 x 5.25" HD	£197.00	500 x 3.5" HD	£356.00

Including Labels, Envelopes & w.p.'s
100% Error Free. 2 for 1 Warranty

OFFER 2:

Genuine Sony 3.5" Disks Double Sided,
made in Japan, sold in Sony outers,
probably the best disk in the World!

10 x 3.5"	£5.90
25 x 3.5"	£14.35
50 x 3.5"	£26.48
100 x 3.5"	£49.78
250 x 3.5"	£123.95
500 x 3.5"	£199.50
1,000 x 3.5"	£369.00

Including labels

**3 1/2"
DISKS FROM
31P Inc VAT**

OFFER 5: 'Keep your data safe'

Top Quality Anti Static Lockable Disk Boxes,
complete with 2 keys, Small or Large
Capacity, ideal for Home or Office use!

3.5" x 40 Capacity	£3.95
3.5" x 80 Capacity	£4.50
3.5" x 100 Capacity	£5.50
3.5" x 120 Capacity	£6.50
5.25" x 70 Capacity	£3.95
5.25" x 100 Capacity	£4.95

OFFER 3:

5.25" Double Sided 48/96 tpi for IBM PC and
Clones, etc, 100% Error Free, 2 for 1 warranty or
money back.

25 x 5.25"	£6.95
50 x 5.25"	£14.95
100 x 5.25"	£24.95
250 x 5.25"	£59.95
500 x 5.25"	£129.00
1,000 x 5.25"	£200.00

Complete with labels, envelopes & w.p.'s

**Star LC10 Printer
£158.95 inc. VAT
Star LC10 Col. Printer
£199.95 inc. VAT**

OFFER 6: Accessories;

Sourced from the world's leading
manufacturers, Quality and Price
Guaranteed, Buy with Confidence

Amiga/ST dust covers	£1.95
Universal Screen Filter	£14.95
3.5" or 5.25" Cleaning Kit	£1.95
Mousemat	£1.95
200 Labels	£2.99
Roll of 1,000 Labels	£7.50
PC or Amiga Cable	£5.95
Mouse House/Bracket	£2.40
Printer Stand with Tray	£13.99
Printer Stand	£11.95
Mouse/Joystick Extension	£3.95

Call for printer ribbons prices

Four good reasons for choosing Original Media as your Supplier,

1 No Minimum Order.**2 Access and Visa accepted****3 Next Day Delivery** (If order placed before 12.00 a.m.)**4 Free Helpful Advice**

Post add £3.50 per order.
Next Day Courier £7.95

CORPORATE,
EDUCATION &
TRADE ENQUIRIES
WELCOME.

THE ORIGINAL

MEDIA

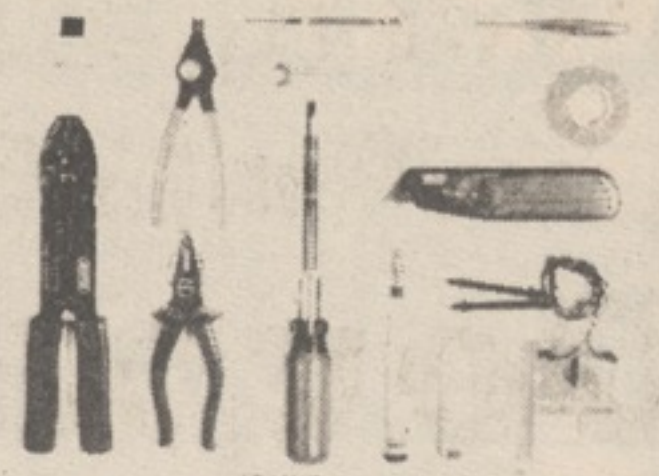
COMPANY LTD.

TEL: (0530) 813591 (8 LINES)

Fax: 0530 813595

Dept. NCE
14 ASHBY RD
COALVILLE
LEICESTER
LE6 2LA

CIRCUIT CITY



When you upgrade from one machine to another, the first thing that it seems logical to do is sell the old machine. Not everyone wants to do this though: favourite games and utilities may not be available on the new one or valuable data may not have yet been transferred. Second-hand computers of a generation ago may not retain much resale value so it's up to you to make the best of your existing kit while upgrading.

POPULAR UPGRADE

The STFM has a built-in TV modulator and various Commodore Amiga packs contain an external RF modulator. The average games player or occasional user may be satisfied with a TV resolution display but if you've any plans for word processing, DTP or anything that involves high resolution displays, you'll need a display that doesn't wander or flicker.

One of the most popular upgrade paths is from Amstrad's 8-bit CPC series to the 68000-based ST or Amiga. Those fortunate enough to already possess the colour monitor from the CPC can save some cash by connecting it to the ST or Amiga.

There are specialist firms who will manufacture a cable to do the job but if you don't mind the smell of hot solder and flux – and you can handle a fiddly job – you could save a bit of cash and produce the cable yourself.

The ST and Amiga have different video connectors but the theory for both jobs is the same. Both machines put out red, green, and blue signals and those signals have to be synchronised.

The Amstrad monitor expects slightly different levels of signal than these machines provide so the tints of the colours may not be accurate, but the colours will certainly be recognisable.

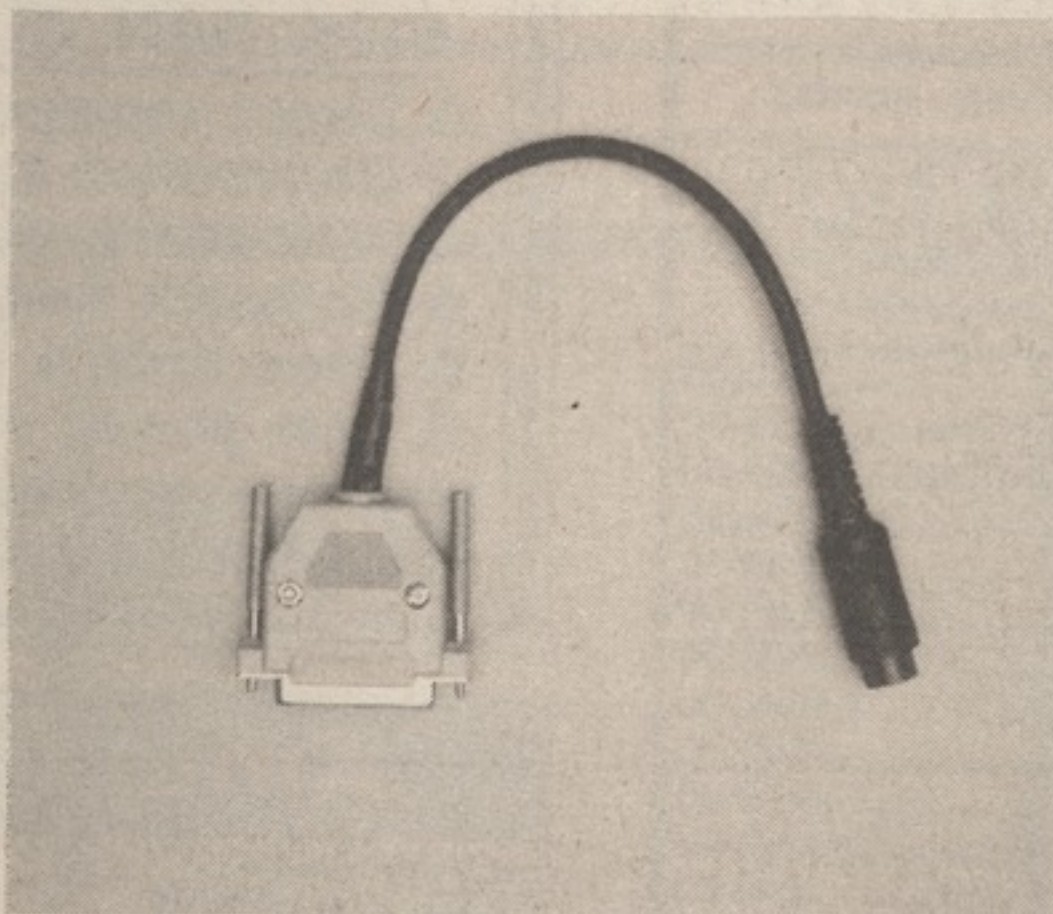
Amstrad has recently enhanced the CPC range with the CPC Pluses. This project won't work with a CPC Plus monitor as the pin configuration is different.

We'll be running a project to connect various machines to the new CPC monitor when there are a few more of them around but if you feel that you must do it now, the monitor connections are in the CPC Plus manual (as are the Amiga and ST pinouts in their respective user manuals). For now, if you have the new

Tired of the aging CPC and want to upgrade to an ST or Amiga but can't afford a monitor? Keith Pomfret welds your 16-bit wonder to the Amstrad colour monitor in a couple of shakes of a soldering iron.

CPC and want to connect an ST or Amiga to it, keep watching Circuit City for the details.

The colour hue attained using an Amiga or ST with a CPC monitor varies from machine to machine and monitor to monitor but none of the combinations we tried gave any startling combinations. All were crisp and useable and provided a much more stable and accurate picture than using a TV modulator.



• The completed lead ready to give your ST or Amiga colour.

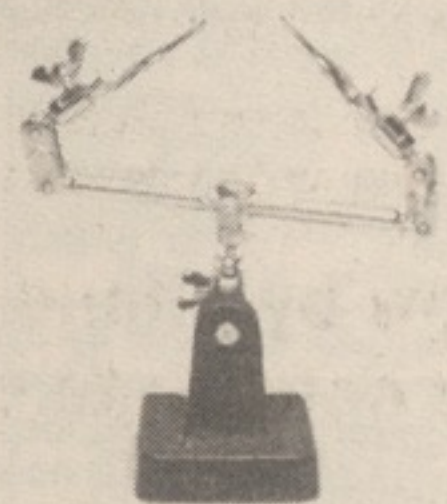
WHAT DO YOU NEED?

In order to make the cable you'll need a length of cable approximately 12 inches long with four colour coded cores and a braided shield for ground. You'll also need a soldering iron and some solder with integral multi-core flux and the connectors for either end. The Amiga uses a female 23-pin D-type connector, the ST a circular 13-way connector and the CPC an 8-pin DIN connector to the pattern shown in the diagram.

Although some companies produce solderless connectors, these are prone to trouble and are no sub-

stitute for a good soldered connection. A pair of 'helping hands' (see photo) is useful for this sort of job as it can hold a hot job steadily allowing you time to position and solder the job correctly and efficiently.

You'll also need some wire strippers.



• A set of 'helping hands' can make delicate soldering easier.

THE JOB

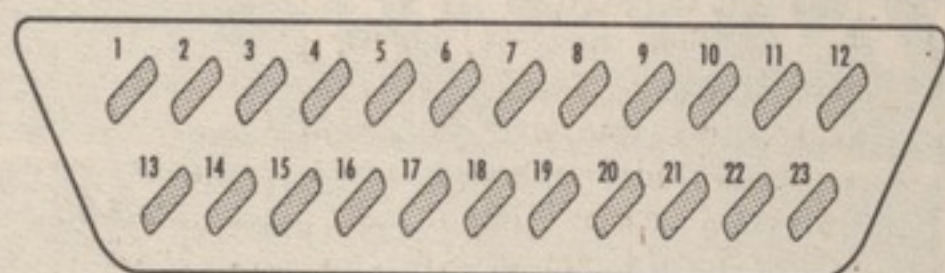
Check that you've got a connector for your ST or Amiga and one for the CPC. Take the four core flex and using a pair of wire strippers, remove 3cm of the outside plastic shielding. Slide back the braided shield and unravel it from the flex.

Twist the braid together to form a tight tail. Take the individual cores and pare them to the metal to 5mm from the end. Do this with both ends of the cable.

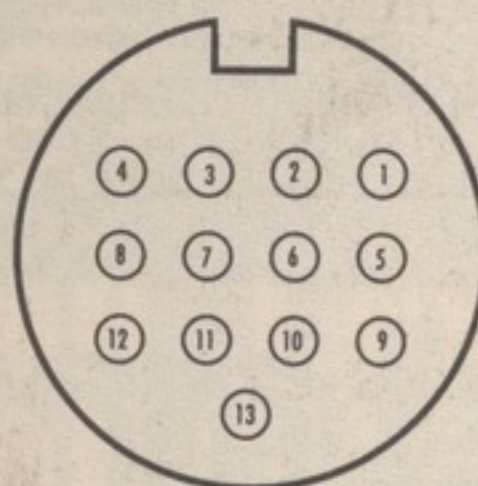
Tin the exposed ends of the cables and the twisted braid. Tinning is the application of a thin coat of solder and is done by warming the cores and braid with a soldering iron and allowing a thin stream of solder to drip on to them and form a thin coating. This makes the joints 'take' better during the soldering.

Once the cores and braids are tinned refer to the diagrams. Solder the appropriate connections, check the job and you will have a working ST or Amiga to CPC monitor lead. ■

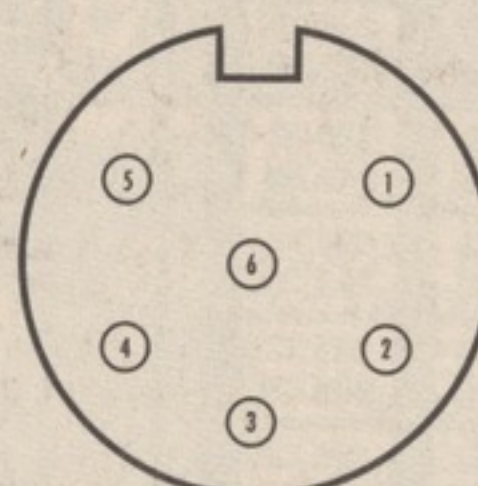
Next week I'll be taking a look at the ready made projects available from parts supplier Maplin and targeting a couple for future development in Circuit City.



• The Amiga socket.



• The Atari socket.



• The Amstrad socket.

AMIGA LEAD

Amiga pin 3	to	Amstrad pin 1 (red)
Amiga pin 4	to	Amstrad pin 2 (green)
Amiga pin 5	to	Amstrad pin 3 (blue)
Amiga pin 10	to	Amstrad pin 4 (synch)
Amiga pin 16	to	Amstrad pin 5 (ground)

ST LEAD

ST pin 6	to	Amstrad pin 1 (red)
ST pin 7	to	Amstrad pin 2 (green)
ST pin 10	to	Amstrad pin 3 (blue)
ST pin 9	to	Amstrad pin 4 (hsynch-synch)
ST pin 12	to	Amstrad pin 5 (vsynch-synch)
ST pin 13	to	Amstrad pin 5 (dround)

WHERE TO GET IT

Try any of these suppliers for the parts:

- Any branch of Tandy (0922 710000 for your nearest branch)
- Maplin (0702 554161)
- Simpson Electronics 0332 760353 (1100-1900)

Or you could contact a specialist such as RSD Connections who will make up any lead for a mutually agreed price. RSD is on 0992 584205.

Evesham Micros

RETAIL SHOWROOMS

63 Bridge Street
Evesham
Worcs WR11 4SF
☎ 0386-765180
fax: 0386-49761
Open Mon-Sat, 9.00 - 5.30

5 Glisson Road
Cambridge CB1 2HA
☎ 0223-323898
fax: 0223-322883
Open Mon-Sat, 9.30 - 6.00
Specialist Education Centre

1762 Pershore Road
Cottrellidge
Birmingham B30 3BH
☎ 021-458 4564
fax: 021-433 3825
Open Mon-Sat, 9.00 - 5.30

ALL PRICES INCLUDE VAT AND DELIVERY
Same day despatch whenever possible. Express Courier delivery £5.00 extra.

MAIL ORDER DEPARTMENT

Unit 9 St Richards Rd, Evesham, Worcs WR11 6XJ

Call us now on ☎ 0386-765500
8 lines, Open Mon-Sat, 9.00-5.30. Fax: 0386-765354
Technical support (open Mon-Fri, 9.30-5.30): 0386-40303

VISA

Send an Order with Cheque, Postal
Order or ACCESS/VISA card details.
Allow 10 days personal cheque clearance.

Government, Education & PLC orders welcome
All products covered by 12 Months Warranty
All goods subject to availability, E. & O.E.

ATARI

All our ST prices include: mouse etc. plus 5 disks of software including 'First Word' wordprocessor, utilities, 'Neochrome' graphics utility, game and demos.

NEW - 520 STFM DISCOVERY PACK

Good quality, good value package based around the 520STFM computer including 512K RAM, 1Mb Drive and built-in TV modulator. Also supplied is:

STOS Game Creator
Carrier Command
Space Harrier
FIRST BASIC
plus 'Discovering your Atari ST' Book

£259.00
Including VAT
and delivery

1040 STE PROFESSIONAL PACK

Excellent starter package, including the very latest 1040STE machine with 1Mb RAM, 1Mb Drive, plus the following extras:

Kuma Wordprocessor
Kuma Database
Kuma Spreadsheet
Kuma Business Graphics

STAC Adventure Creator
Hyper Paint (STE version)
FIRST BASIC
'Prince' game

£429.00
Including VAT
and delivery

NEW! 520 STE TURBO PACK

Features the latest 520STE with 1Mb drive, joystick, mouse, user guide, 5 disks of public domain software, plus a high quality selection of entertainment and creativity software, including:

Indiana Jones & the Last Crusade
Impossible Mission II
Human Killing Machine
Dragons Breath
Hyper Paint 2 (STE version)
Music Maker 2 (STE version)

Blood Money
Super Cycle
Out Run
Anarchy
FIRST BASIC
STOS

£339.00
Inc. VAT & Delivery

520STE RAM upgrade to 1Mb, includes 2x256K SIMMS modules	£40.00
520/1040STE RAM upgrade to 2Mb, includes 2x1Mb SIMMS modules	£119.00
520/1040STE RAM upgrade to 4Mb, includes 4x1Mb SIMMS modules	£235.00
520STFM 1Mb Drive Upgrade Kit with full fitting instructions	£54.95
520STFM 1Mb Memory Upgrade Kit, requires soldering	£59.00
Mega ST1 with monochrome monitor	£599.00
Mega ST2 with monochrome monitor	£849.00
Mega ST4 with monochrome monitor	£1099.00
SM124 monochrome monitor	£99.00
SC1224 colour monitor	£279.00
Philips CM8833 14" colour monitor (stereo sound) c/w ST cable	£259.00
Vidi-ST 16-tone video frame grabber inc. digitising software	£89.00
NeoDesk V3 Desktop replacement	£29.95

Amstrad PC Range

All Amstrad Products include 12 Months On-Site Maintenance

'LOCOSCRIPT PC'
FREE with any PC1640!

'LOTUS 1-2-3 v2.01'
FREE with any PC2086!

**All PC models include
'Top 10 Solid Gold'
Games Package!**

**CREATE YOUR OWN HARD
DISK CONFIGURATION FOR
ANY 1512/1640/2086 MODEL!**

Using a Western Digital Filecard, which includes XTree and SpeedRead software, we can upgrade the PC for you before despatch. Using the 'SD' column of the price table, simply add £225.00 inc. VAT for a 21Mb configuration, £239.00 for a 32Mb configuration, or £279.00 for a 41Mb configuration.

	SD	DD	AMS H.D.
MONO 1640	390.43 449.00	477.39 549.00	651.30 749.00
CGA (colour) 1640	477.39 549.00	564.35 649.00	738.26 849.00
EGA (ECD) 1640	564.35 649.00	651.30 749.00	825.22 949.00
2086 MONO	433.91 499.00	520.87 599.00	694.78 799.00
2086 CD	564.35 649.00	651.30 749.00	825.22 949.00
2086 12" HRCDD	564.35 649.00	651.30 749.00	825.22 949.00
2086 14" HRCDD	607.83 699.00	694.78 799.00	868.70 999.00

upgrades / accessories

PC1512 memory upgrade to 640K	£29.95	Enhancer 101 replacement keyboard ...	£74.95
Maths Co-processor 8087-2	£109.00	3.5" drive (720K) for SD models	£79.95
NEC V30 (8086 replacement)	£24.95	PC2000 series compatible	
Archive XL 40Mb Ext. tape streamer ..	£379.00	5.25" (360K) external drive	£84.95
Amstrad Modem Card V21/23	£99.00	Genius GM6000 Mouse package	£34.95
Communicate Fax Card SR	£199.00	Konix Joystick & Controller Card	£28.95

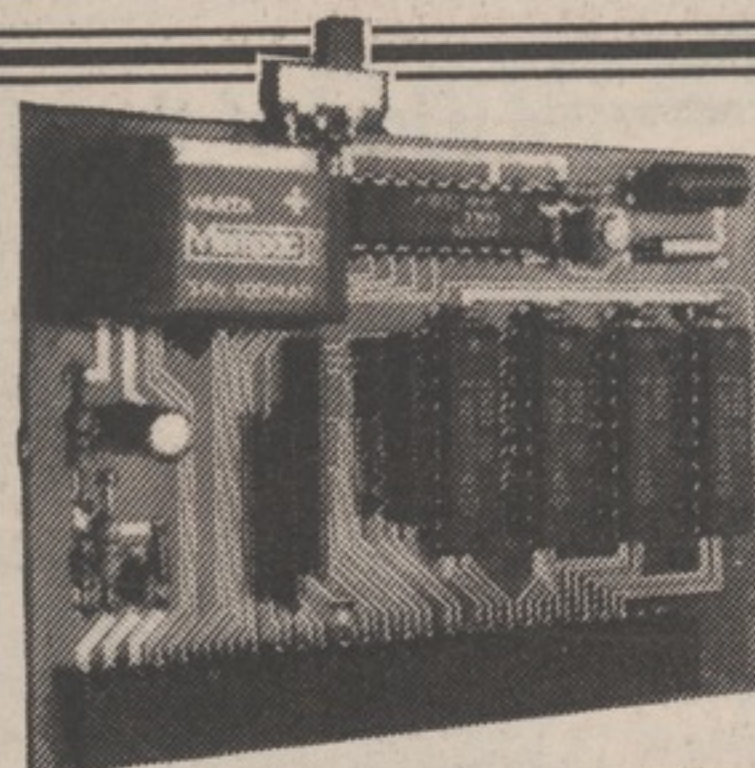
Low price External 3.5" Floppy Drive (720K), suits any Amstrad PC 1512/1640 inc. Double Drive and Hard Disk models, uses no expansion slots

Amstrad Laptop Portables

prices in brackets are excluding VAT.

N.B. Amstrad ALT Portables Do Not include On-Site Maintenance

PPC512S	(£373.04) £429.00	PPC640D	(£546.96) £629.00
PPC512D	(£433.91) £499.00	ALT286	(£1390.43) £1599.00
PPC640S	(£477.39) £549.00	ALT386sx	(£1738.26) £1999.00



AMIGA A500

512K MEMORY UPGRADE

ONLY £37.95 inc. VAT & delivery

512K RAM/CLOCK EXPANSION FEATURES:

- ★ Direct replacement for the A501 expansion
- ★ Convenient On / Off Memory Switch
- ★ Auto-recharging battery backed Real-time Clock
- ★ Compact unit size : Ultra-neat design
- ★ Uses only 4 D-RAMs for High Reliability
- ★ Low power consumption

RAM expansion without clock, only £32.95

Amiga & ST 3.5" Drives

- ★ Very Quiet
- ★ Slimline Styling
- ★ Fully Compatible
- ★ Top quality Teac/Citizen drive mechanism
- ★ On/Off switch for Amiga
- ★ External plug-in PSU for ST
- ★ Throughport for Amiga
- ★ 1Mb unformatted capacity

Fully compatible, high quality 3.5" external drives for the ST and Amiga

Amiga version only £59.95

Atari ST version only £64.95

Prices include VAT & delivery

Western Digital Filecards

Upgrading your PC to hard disk? Look no further, we offer the best prices on top quality filecards, with ultra-competitive speed ratings. Thorough documentation supplied, low power consumption, with free XTree file management software and Speedread. For Amstrad PC users we supply filecards tested and formatted, with our simple software installation procedure. The best packages available!

21MB...£225.00 32MB...£239.00 41MB...£279.00

3 1/2" disks

10...£9.95 in plastic case £11.95
25...£22.95 in 40 cap case £29.95
Fully guaranteed double sided media

5 1/4" disks

25...£11.95 in 50 cap box £18.95
in 100 cap box £20.95
Fully guaranteed double sided media

PRINTERS

All prices include VAT, delivery and cable

star

**EVEHAM MICROS SPECIAL OFFER -
ALL STAR PRINTERS INCLUDE 12
MONTHS ON-SITE MAINTENANCE!**

Star LC24-10 feature-packed multifont 24 pin printer, amazing low price	£239.00
Star LC10 best-selling 144/36cps printer, 4 NLQ fonts	£159.00
Star LC10 7-colour version of above printer	£209.00
Star LC15 wide carriage version of LC10	£329.00
Star LC24-15 wide carriage version of LC24-10	£409.00
Star FR-10 Professional 9pin 300/76 cps, 31K buffer, 16 NLQ fonts, EE-PROM configuration memory and 12 months on-site maintenance	£399.00
Star FR-15 9pin as FR10, wide carriage version	£499.00
Star XB24-10 Professional 24pin: 27K buffer, 4 SLQ & 25 LQ fonts with EE-PROM configuration memory and 12 months on-site maintenance	£499.00
Star XB24-15 wide carriage version of XB24-10, with 41K buffer	£649.00
Star Colour Upgrade Kit for XB or FR series printers (please state which)	£39.00
Hewlett Packard Deskjet Plus 300dpi inkjet printer - special offer!	£399.00
NEC P2+ budget 24pin, special low price!	£239.00
Panasonic KXP1180 super 9pin with over 3400 typesets, 11" carriage	£179.00
Panasonic KXP1124 good quality 11" multifont 24pin printer	£269.00
Panasonic KXP1624 wide carriage version of KXP1124	£399.00
Epson LX400 popular 10" 180/25 cps	£159.00
Epson LQ550 good 24pin printer 150/50 cps	£349.00
Mannesmann Tally MT-81 130/24 cps	£149.00

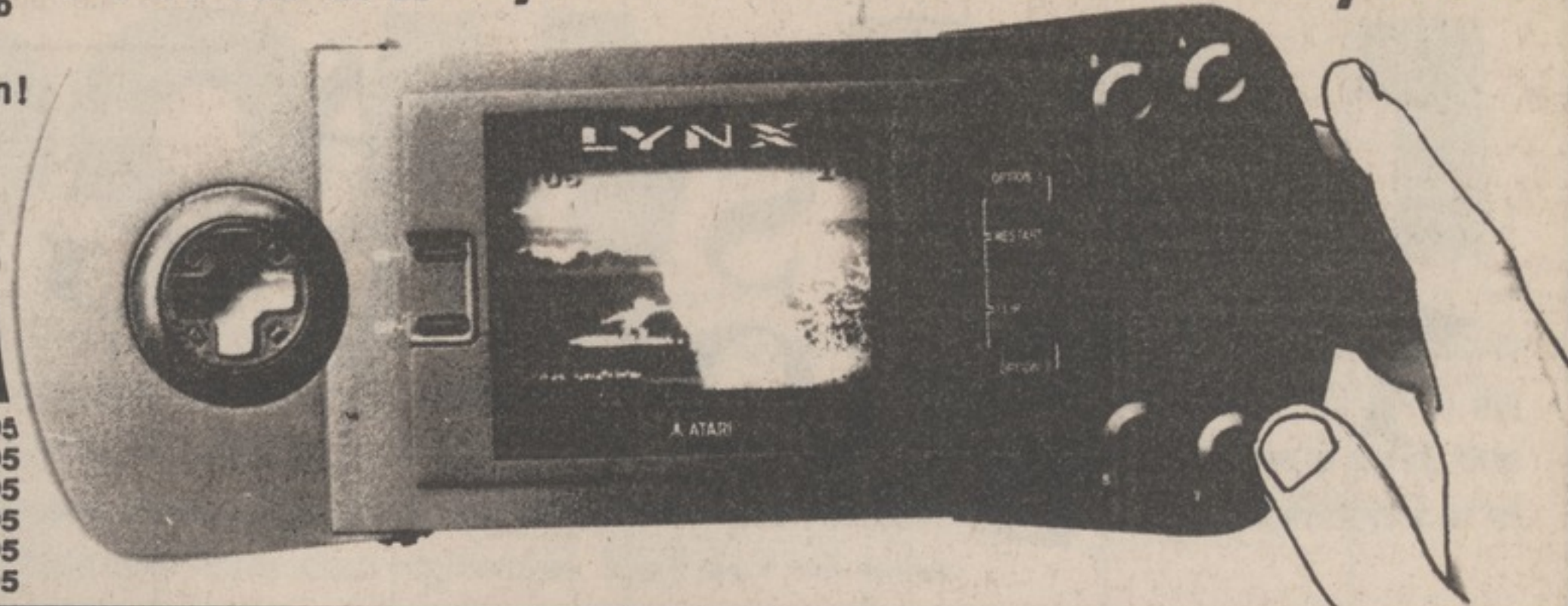
- Fantastic hand-held portable 16-bit video games machine
- Excellent built-in high definition, full colour LCD display
- Capable of displaying up to 16 colours out of a possible 4096
- 32-bit audio processor produces superb 4-Channel sound
- Left or right hand play easily achieved with screen flip option!
- Multiplayer Competitions possible using COMLYNX cable (supplied) to connect with other Atari Lynx systems
- Free California Games (multiplayer) game card supplied!
- Uses 6x AA batteries (not supplied) or AC adapter (supplied)

ONLY £159.00 including VAT and delivery

Game Cards now available :

Blue Lightning	£19.95
Gates of Zendocon	£19.95
Electro Cop	£19.95
Chips Challenge	£19.95
Gauntlet III	£22.95
Rampage	£22.95

ATARI Lynx Portable Games System



SPECIAL DEALS

All A500 Packages also include the following :

Karate Kid II	Jaws	Wordwright (w processor)	Super Huey
Leatherneck	Defcon 5	Nigel Mansell's Grand Prix	Goldrunner
Battle Squadron	High Steel	Better Dead than Alien	Night Walk

Amiga 500 512K Screen Gems pack including 5 software titles and TV modulator	£379.00
Amiga 500 512K Flight of Fantasy pack includes 4 software titles and TV modulator	£379.00
Amiga 500 512K Batpack includes 4 software titles and TV modulator	£379.00
Amiga 500 1Mb (Batpack or F.O.F. Pack or Screen Gems pack) upgraded using our 512K RAM/Clock	£415.00
Amiga 500 (Batpack or F.O.F. Pack or Screen Gems pack) with Drive includes our 3 1/2" External Drive	£435.00
Amiga 500 1Mb (Batpack or F.O.F. Pack or Screen Gems pack) with Drive features our 512K RAM/Clock Upgrade plus 2nd 3 1/2" External Drive	£470.00
External 5.25" 40/80 track switchable drive ...	£99.00
MIDI interface	£19.95
Vidi-Amiga video digitiser package	£95.00
Kickstart 1.3 Upgrade pack	£29.95
MiniGEN Genlock Adapter	£95.00
Philips CM8833 colour monitor inc.cable	£259.00
Contriver Hi-Res replacement Mouse pack ...	£22.95
Amiga 500 dust cover	£4.95

CBM A590 HARD DRIVE

Good quality 20Mb Hard Disk from Commodore, including its own PSU. Features sockets for up to 2Mb of FAST RAM expansion (see below). 80ms Access time, with up to 2.4Mb/sec transfer rate. Will autoboot when used with Kickstart 1.3. Has built-in cooling fan.

A590 (20Mb) only £379.00
40Mb version only £499.00

A590 512K RAM Upgrade kit	£36.00
A590 1Mb RAM Upgrade kit	£70.00
A590 2Mb RAM Upgrade kit	£135.00

RAM upgrades fitted free when bought with A590.

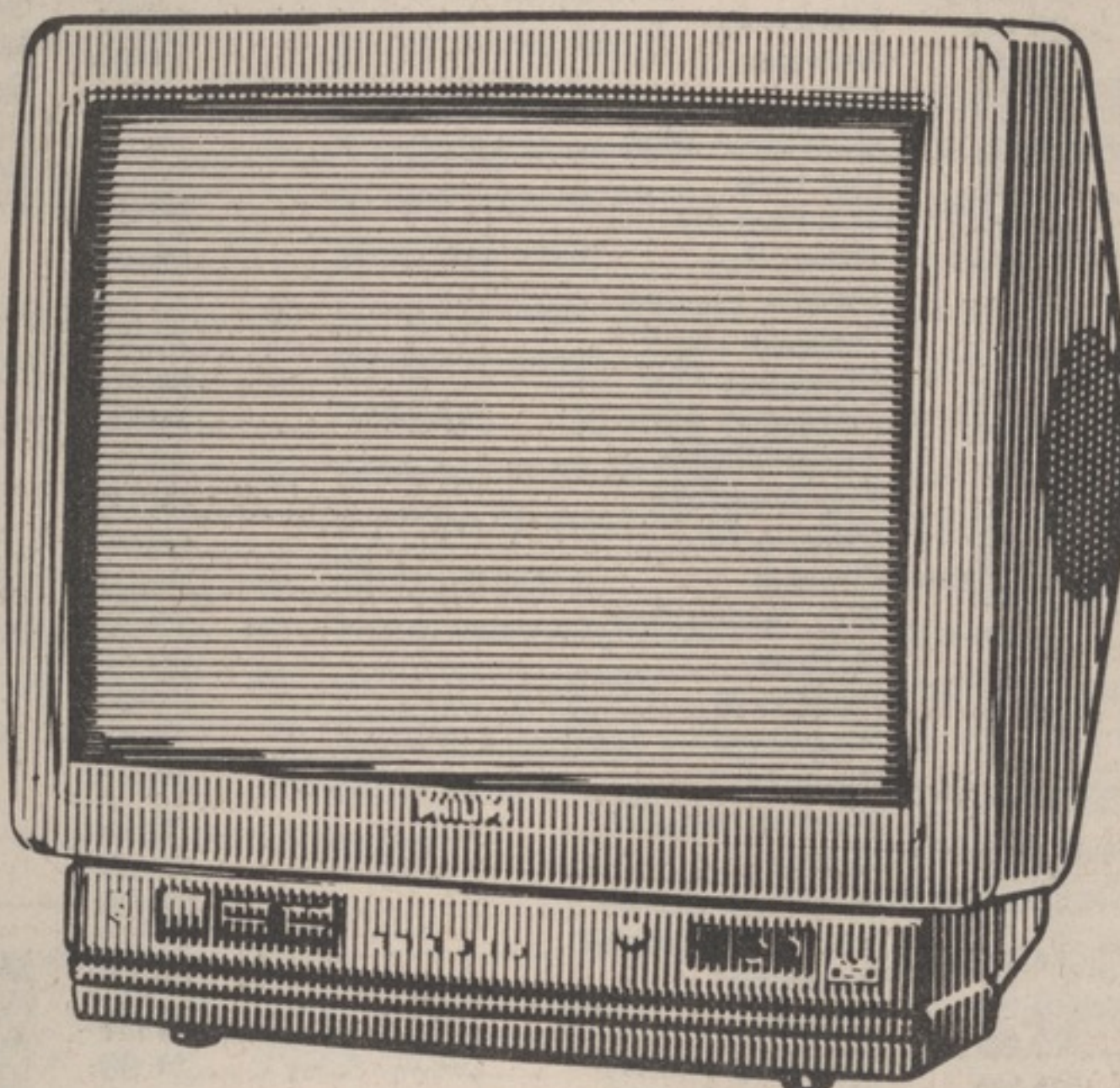
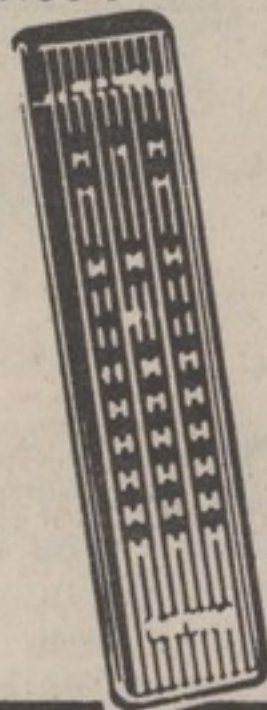
PHILIPS 15" FST TV/Monitor (MODEL 2530)

With its dedicated monitor input, this model combines the advantages of a high quality medium resolution monitor with the convenience of remote control Teletext TV - at an excellent low price!

- ✓ Suits ST or Amiga (cable supplied)
- ✓ Teletext facilities; on screen graphics
- ✓ Full infra-red remote control
- ✓ SCART Input/Output Connector
- ✓ Audio/Composite Video inputs
- ✓ 60 TV tuner presets
- ✓ Headphone private listening jack
- ✓ External aerial input (loop supplied)

£269.00

Includes VAT, delivery and computer connection lead



ATARI ABC-286

FREE with all ABC-286 machines : Logotron '8-in-1 Professional' Inc. W/Processor, Database, Spreadsheet, Graphics, etc.

PLUS 12 MONTHS ON-SITE MAINTENANCE

- ☆ 80286 Processor with 8 Mhz clock speed
- ☆ 640K RAM standard, expandable to 1 Mb
- ☆ 3 AT / XT compatible Expansion slots
- ☆ Disk controller supports 2 floppy & 2 hard drives
- ☆ One 3.5" (1.44Mb) floppy drive and a 30Mb hard disk drive fitted as standard
- ☆ Socket for 80287-8 Maths Co-Processor
- ☆ Video graphics adapter supports EGA, CGA, MDA and Hercules, with digital video port
- ☆ 102-key DIN spec. AT-Protocol keyboard
- ☆ Supplied with MS-DOS 3.3 and GW-BASIC

ABC286 SD/30 Mb base unit . £803.85

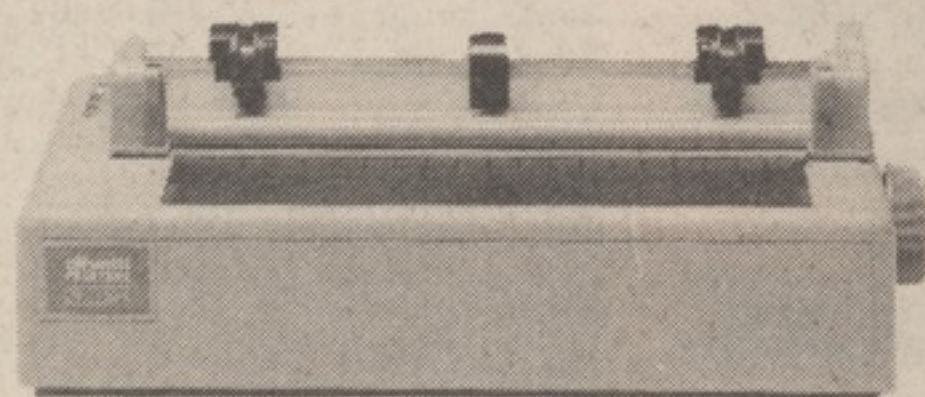
ABC286 SD/30Mb with Mono Monitor £861.35

ABC286 SD/30Mb with EGA Monitor £976.35

Prices include VAT/Delivery and 12 months On-Site Maintenance

Optional 5.25" 1.2Mb internally fitted floppy drive available £119.00

olivetti DM100S



Top value, high performing 9-pin dot matrix printer

- 200cps draft, 30cps NLQ print speed
- Pica, Elite and Condensed printing
- Standard Centronics Parallel interface
- Friction and Tractor feed
- Optional auto cut sheet feeder available

ONLY £129.95

Cut sheet feeder available for only £79.95

Prices include VAT, delivery and 12 months on-site maintenance!

olivetti PCS 86/286

FREE With All Models :

- ✓ 12 Months On-Site Maintenance
- ✓ PS2-compatible Mouse with software
- ✓ Logotron 'Eight-In-One' Integrated Package
- ✓ 'Top 10 Solid Gold' Games package



FREE WITH EVERY PCS286 : OLIVETTI DM100S 9-PIN PRINTER!

or, if you prefer, £129.95 inc.VAT allowance on another printer of your choice.

- ◆ 101/102 key AT-layout PS/2 compatible keyboard (Mini-DIN)
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitors: 14" Colour / 12" Mono. (dot pitch 0.39mm)
- ◆ Socket for Optional Maths Co-Processor
- ◆ Hard Drive versions: 20Mb (27ms access time) / 40Mb (29ms)

PCS 86

- ◆ NEC-V30 microprocessor 10Mhz clock speed, 0 wait states
- ◆ 640K RAM standard, upgradeable to 2.5Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 720K formatted capacity
- ◆ 3 Full size XT-compatible 8-bit expansion slots

PCS 286

- ◆ Intel 80286 microprocessor 12MHz clock speed, 1 wait states
- ◆ 1Mb RAM standard, upgradeable to 4Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 1.44Mb formatted capacity
- ◆ 3 Full size expansion slots; 1 x 8bit and 2 x 16bit (XT/AT style).

	SD	DD	SD 20MB	SD 40MB
PCS86 MONO	549.00 631.35	649.00 746.35	849.00 976.35	N/A N/A
PCS86 COLOUR	699.00 803.85	799.00 918.85	999.00 1148.85	N/A N/A
PCS286 MONO	N/A N/A	949.00 1091.35	1049.00 1206.35	1149.00 1321.35
PCS286 COLOUR	N/A N/A	1099.00 1263.85	1199.00 1378.85	1299.00 1493.85

Logotron 'Eight-In-One' package includes Wordprocessor, Database, Spreadsheet, Graphics etc. 'Top 10 Solid Gold' games pack includes Arcade, Adventure, Creativity, Simulation & Strategy titles.

ACCESSORIES

5.25" 1.2Mb/360K drive with controller	£129.95
PCS 286 2Mb RAM Upgrade Kit	£119.00
PCS 286 4Mb RAM Upgrade Kit	£235.00

YOUR SEGA SHOPPING LIST

Master System.....	79.99
Master System Plus	99.99
Control Pad	6.99
Handle Controller	39.99
Light Phaser	29.99
Light Phaser + Cart	44.99
Rapid Fire Unit	5.99
80 Commander	9.99
3D Glasses	39.99
Control Stick	14.99
Mains Adaptor	6.99
* Aerial Assault	29.99
Action Fighter	12.99
After Burner	29.99
Alex Kidd	24.99
Alex Kidd-High Tech	29.99
Alex-Kidd-Lost Stars	29.99
* Alex-Kidd-Shinobi	29.99
Alien Syndrome	29.99
Altered Beast	29.99
American Baseball	29.99
American Pro-Football	29.99
Assault City	29.99
Astro Warrior/Pitpot	24.99
Aztec Adventure	12.99
Bank Panic	17.99
Baseball Nightmare	29.99
Battle Outrun	29.99
Black Belt	24.99
Blade Eagle 3D	29.99
Bomber Raid	29.99
California Games	29.99
Captain Silver	29.99
Casino Games	29.99
Chase H.Q.	29.99
Choplifter	24.99
Cloud Master	29.99
* Columns	24.99
Cyborg Hunter	24.99
Dead Angle	29.99
Double Dragon	29.99
* Double Hawk	29.99
Dynamite Dux	29.99
Emduro Racer	9.99
* Eswat	29.99
F16 Fighter	17.99
Fantasy Zone	12.99
Fantasy Zone TM	24.99
Fantasy Zone 2	24.99
* Grim Ground	29.99
Galaxy Force	29.99
Gangster Town	24.99
* Gauntlet	29.99
Ghostbusters	29.99
Ghost House	17.99
Global Defense	12.99
Golden Axe	29.99
Golfmania	32.99

Golvellius	29.99
Great Baseball	24.99
Great Basketball	24.99
Great Football	24.99
Great Golf	24.99
Great Volleyball	24.99
* Impossible Mission	29.99
* Indiana Jones	29.99
* Jungle Fighter	29.99
Kenseiden	29.99
Kung Fu Kidd	24.99
Lord Of The Sword	29.99
Maze Hunter 3D	29.99
Miracle Warrior	32.99
Missile Defense 3D	29.99
Monopoly	29.99
My Hero	17.99
Ninja	9.99
Operation Wolf	29.99
Out Run	29.99
Out Run 3D	29.99
* Paper Boy	29.99
* Parlor Games	17.99
Penguin Land	29.99
Phantasy Star	39.99
Poseidon Wars 3D	29.99
Power Strike	24.99
Pro Wrestling	24.99
Psycho Fox	29.99
Quartet	24.99
R.C. Grand Prix	29.99
R-Type	29.99
Rambo III	29.99
Rampage	29.99
Rastam	29.99
Rescue Mission	9.99
Rocky	29.99
Scramble Spirits	29.99
Secret Command	12.99
Shanghai	24.99
Shinobi	29.99
Shooting Gallery	24.99
Shooting Games	24.99
Slap Shot	29.99
Space Harrier	29.99
Space Harrier 3D	29.99
Spellcaster	29.99
Spy Vs Spy	17.99
* Submarine Attack	29.99
* Super Monaco-G-Prix	29.99
Super Tennis	9.99
Teddy Boy	9.99
Tennis Ace	29.99
Thunder Blade	29.99
Time Soldiers	29.99
Transbot	9.99
Ultima 4	39.99
Vigilante	29.99
Wanted	24.99

Wonderboy	24.99
Wonderboy-Mon/Land	29.99
Wonderboy III	29.99
World Games	24.99
World Grand Prix	12.99
World Soccer	24.99
Y's	32.99
Zaxxon 3D	29.99
Zillion	24.99
Zillion II	24.99

SEGA GOODIES

Sega Bumbags	5.99
Sega Hat	5.99
Sega Teeshirt L/S	9.99
Sega Holdall	13.99
Sega Watch	14.99

**THE UK
MEGA DRIVE
HAS LANDED**

Megadrive	189.99
Powerbase Converter	29.99
Arcade Power Stick	34.99
Alex Kidd Ench/Castle	29.99
Arnold Palmer T/Golf	34.99
Forgotten Worlds	34.99
Ghouls 'n' Ghosts	44.99
Golden Axe	34.99
Last Battle	34.99
Mystic Defender	34.99
Rambo III	29.99
Revenge of Shinobi	34.99
Space Harrier II	34.99
Super Hang On	34.99
Super League Baseball	34.99
Super Thunderblade	34.99
Thunder Force 2	34.99
Truxton	34.99
World Cup Italia 90	29.99
Zoom	29.99

FREE SEGA BUBBLEGUM WITH ALL ORDERS

ALL ORDERS WILL BE SENT ASAP
PRICES INCLUDE VAT & DELIVERY

* COMING SOON

PLEASE SEND PAYMENT WITH

VISA

ORDER



**OR COME INTO
OUR SHOP
OPENING
SOON**

**TV GAMES
THE SEGA SHOP
92 EWELL BY-PASS,
EWELL, SURREY
PHONE 081 786 7816/
0831 52474
FAX 081 786 7192**

TV Games is an official SEGA stockist UK versions enquiries only.

OPENING TIME

Welcome. After a slow start, the mail has been piling in. I'm not sure whether this is because you're all friendly, literate people (except for dear old Tree that is) or because you're an avaricious bunch of grabbers. Frankly, it makes no difference to me at all.

What with all the parties to celebrate issue 100, it's been a hectic last few days. We were treated to a joint bash with the lads from *Amstrad Action* [they're five and behave like it] at the very chic Club de Terrysocks et Grolschtopper. Tarquin St John-Sprout, our office sanitation executive, tried to get off with everything in sight, including Ms Hanks the coffee machine operative who wore a most pleasant 1973 coffee-cream paisley hot pants outfit.

What really tified me off was that my personal colour NeXT machine was also in the line of fire. Tarquin evacuated his lunch all over the new add-on Motorola 56001 DSP chip. He then proceeded to spill a Grolsch all over the erasable optical drive, and the 1.4Gb hard drive was treated to the "Do you have any Eton in you? No? Would you like some! Haw, haw, haw."

We had to take Tarquin outside and shoot him with the Ouzi which Andy editor picked up in Belgium. We only winged him and he has since put it down to a hangover.

Well, that's about it for this week so get out of this column and don't come round here collecting for QL users against the Gulf again.

STOP PRESS

I just thought you'd like to know that so far not one vote has been received for the 'Best Two Pages in the Middle of a Computer Magazine' award. So, no more Centrefold. It's been dropped by the Ed and the publisher... Or has it?

ROOM 101

Issue 101, nothing special about that you might think. Well that would make you one of the people who obviously haven't read George Orwell's dark and searing indictment of the future... er the past, 1984. Room 101 was the place where those who would not toe the line were sent in order to meet their greatest fears. With this in mind, and after buying drinks for everyone down at the Hack and LaserWriter (our local), I managed to get each member of the Express team to tell me their most horrendous nightmares. We'll start with mine:

Tim 'Centrefold' Smith's 10 Greatest Fears (Staff Writer)

- 1) Pedants who can't spell and don't like football
- 2) Synchronised swimmers called Tammy
- 3) Meeting royalty when they've been drinking too much
- 4) Guinness poured in under five minutes
- 5) Catchphrase with or without Roy Walker
- 6) Fear itself
- 7) Clichés
- 8) People who think chess is boring
- 9) Hippies with attitude
- 10) Conversations with people wearing anoraks

Next up...

Helen 'Trump' Kirkhope (Advertisement Manager)

- 1) Good looking men... too much temptation
- 2) Going bald
- 3) A wig shortage if I do go bald
- 4) Losing my cash card and chequebook.
- 5) Being invited to the Express' 2,000th birthday party
- 6) Realising that I'd taken out a year's subscription to *Popular Computing Weekly*.
- 7) Viz going bust
- 8) Relocating to Swindon or Slough
- 9) Being reborn as a man called Richard Head
- 10) Finding a curly black hair in my onion bahji

Your turn...

Keith 'Luciano' Pomfret (Technical Editor)

- 1) Being found out
- 2) Not being found out
- 3) Having to listen to Stock, Aitken and Waterman
- 4) Ad executives bearing gifts
- 5) Acorn product launches (they only serve pizza)
- 6) Diets (Oink Oink)
- 7) Standard Class on the train

- 8) The Inland Revenue
- 9) Customs and Excise
- 10) P45s

Earth calling...

Steve 'Cyberman' Coulter (Sub-Editor)

- 1) Losing at computer golf to people who think they're good but aren't.
- 2) The big cockroaches you get in the tropics that fly and carry diseases and end up in your mouth when you are asleep
- 3) Not getting all my copy in on time because it annoys the deputy editor
- 4) Dying in a nasty car crash
- 5) Living in a bedsit full of Christians
- 6) Learning that Newsnight has been taken off the air.
- 7) Flying (crashing)
- 8) Eating coconut by mistake
- 9) Losing my good looks
- 10) Meeting Cilla Black and thinking she was my mother

Now...

Colin 'Pilger' Campbell (News Editor)

- 1) Amstrad's lawyers
- 2) Very hungry giant wasps
- 3) Being stuck in a lift with Peter Walker (Atari's PR man)
- 4) Pocket calculators
- 5) A world without David Platt (Saint David if you don't mind)
- 6) Hattie Jacques
- 7) Another *Police Academy* flick
- 8) Lots of sand (in case of conscription)
- 9) Stuart Anderton on deadline day
- 10) Being the one who sings on *Blind Date*

Now...

Andy 'Reg'n'Ron' Storer (Editor)

- 1) Drowning in a bath full of slugs
- 2) Seeing old photos of myself
- 3) Sharing a stomach pump with Rik 'Hitman' Haynes

- 4) Being features editor on a PCW magazine
- 5) Working for *The One*
- 6) Being art editor on *Mondo 2000*
- 7) Giving the inaugural speech at a X-25 protocol conference
- 8) Being a product tester for Level 9
- 9) Being Angela Rippon
- 10) Getting worried about anything

Excuse me sir, it's...

Graeme 'Godfather' Kidd (Publisher)

- 1) Going to the bathroom barefoot and treading on some cat poo
- 2) Waking up and finding that it IS all a dream
- 3) Having my photograph taken with cartoon characters
- 4) Eating too much pizza and turning into a turtle
- 5) Dying and coming back as Cathy Campos' (Mirrorsoft's PR person) washing machine
- 6) Not being able to be rude to Tim Smith every day
- 7) Interviewing New Kids On The Block for a magazine article
- 8) Having to find an excuse not to take all my clothes off for Playgirl's photographer
- 9) Waking up in the morning
- 10) Running out of ten pee pieces when I can get an all time high score on *Golden Axe*.

I say, that wouldn't be...

Amanda 'Crayons' Cook (Art Editor)

- 1) Flying birds.
- 2) Brown moaning pecking chickens.
- 3) Hidden sweetcorn in my food.
- 4) Starlings that fall down the chimney and shit on your lampshade.
- 5) Looking as thick as shit when playing Trivial Pursuits.
- 6) Tim Smith looking trendy

all the time with his
Timberland lookalikes.

- 7) Finding the coconut sweet in a bag of Rebels.
- 8) My smelly Doc Martins throwing themselves away in the dustbin before I buy a new pair.
- 9) Waking up with a daddy long legs up my nose.
- 10) Buying the Walkers crisps in the blue packet thinking they're salt & vinegar when they're bloody cheese & onion.

And heeeeeeere's...

Stuart 'Sir James' Anderton (Deputy Editor)

- 1) My round
- 2) Deadlines
- 3) Shoelaces
- 4) Waking up
- 5) Kylie Minogue
- 6) Paul Gascoigne
- 7) Slime (blenophobia. Not many people know that)
- 8) Being turned off
- 9) Council houses
- 10) Air

Last but not least...

Julie 'New Kid on the Block' Tolley (Production Editor)

- 1) Falling
- 2) Putting my foot in it
- 3) Rottweilers
- 4) The loony on the street who always chooses me
- 5) That the man in the car I've just cut up will get out and hit me
- 6) Public toilets
- 7) Zits
- 8) Senile dementia
- 9) Doctor's waiting rooms
- 10) Finding a cockroach in my chinese takeaway

That's it then. The more astute of you will have noticed that lot adds up to 100 fears. So where's the 101st? Well, our concerted opinion, after several pints, was that our greatest fear was losing all our readers... to a psychotic, axe wielding, bloodsucking freak in a strange serial murder.



READER'S CHART

Yet again a week goes by without a reader's chart. Frankly I'm thinking of dropping this section, what do you think? Instead I contacted a friend of mine, Count Ken Mosley, to tell us what his fave computer flicks are. Yes, it's the return of Ken [Chaos] Mosley. Please note that since his return from Tehran, he's been living in cyberspace

- 1) *Death Race 68000*
(102 mins)
- 2) *Another 48Ks*
(2 mins)
- 3) *Blood SEUCKing Freaks*
(3 days)
- 4) *Big Blue Velvet*
(1,220 mins)
- 5) *A Kind of Loading*
(21 months)
- 6) *RISCy Business*
(2 seconds)
- 7) *A Day at the Ray Traces*
(60 mins)
- 8) *Big Footprint and the Hendersons*
(12 mins)
- 9) *Dial M for Sugar*
(120 mins)
- 10) *A Disk Called Wanda*
(666 mins)

THE WORST
2001 *A Space Odyssey*

THE TOSH TEN

Every week we bring you 10 completely useless things which could be used a conversation starters or ice breakers at particularly boring parties. This week it's definitions, have all been sent in by Matthew Miller from York. Write and tell me what you'd like to win Matty boy.

- 1) Byte = 8 bits, only one of which is wrong
- 2) Easy to learn = Hard to use
- 3) Fax = The opposite to fixion
- 4) GEM = Gross Exhauster of Memory
- 5) Hood = Two bits, as in "You two-bit hood"
- 6) Loop = See Loop
- 7) Shareware = You write it, we'll share it
- 8) ST = A defence mechanism for enraged Amiga owners
- 9) Turtle = A shell routine
- 10) Control character = A

Tim Smith's CENT

Write to 30 Monmouth Street, Bath BA1 2BW (if you dare)

I WISH I'D SAID THAT

Have you read or heard any computer related wibble which has made you laugh, cry or react at all? It could come from a manual, an advert, even a magazine.

"I would rather live with the

occasional vandal than the police state" Richard Stallman of the Free Software Foundation quoted in *New Scientist*.

"Replacing the cross seam in the crotch of your pants with a

gusset means that at the end of a long drive, a shift at your desk or a trip into cyberspace, your mind maybe frazzled, but you won't have to tug at the tender places grimacing." Advert for cyber clothes by Chipants.

Letter Spray

Want to see your name in print? Then write to Centrefold. This week's replies by Pope Alexander I's hairdresser's son's wife's insurance dealer..

The postbag which takes the views of it readers and utterly ignores them. Would you like to see your name in print? Well write something interesting, keep it brief, and you might stand a chance. Try and keep it computer related.

Yo Tim, (*now that's quite enough of that*) I would like to complain in the strongest possible terms about the picture of the two female type persons of homo sapiens persuasion in a state of undress that you saw fit to print in this week's Centrefold (*well it was a couple of weeks ago*). Pictures like this should be printed in colour.

As if this wasn't enough, I am most disappointed with the new mix of the *Neighbours* theme tune, it is quite appalling. Don't let it happen again.

May a swarm of locusts make a home in your favourite pair of trousers.
The Android, Rhyl, Clwyd.

Dear Android, What is it with Rhyl? Is that the place that all the dead computers go? As for your sexist comments, I have passed them on to Angry Wimmin Against People with Stupid Names. The whole point of printing that photograph was to start a stream of ideologically sound abuse which I could then use to prove that computer users are not predominantly male, have deep seated personality problems and couldn't score in a harem. Never mind, I guess that stereotypes live on. By the way, the new *Neighbours* theme was mixed using an ST so it can't be that bad. Can it?

Sir, I have been buying *NCE* from No. 4 edition and find it and excelent [*sic*] read and value for money, the new format looks even better in spite of the 12p increase.

There is only one criticism [*sic*] I have to make, I collect the magazines and being the owner of an STE I enter the competition for any software that I have not got, so I now have several magazines with a hole in an article from where the entry coupon came.

Can you please try to put the competition forms on the back of an advert instead of an article, I am sure there are other readers like myself who find this most annoying [*again sic*].

Now thats [*sic again*] off my chest, keep up the good work.

P.S Anything lying about your desk for the STE would be put to good use.
D S Price, Bolton

Dear D S, get it together laddie. How am I supposed to take your, valid criticisms seriously if I'm laughing my head off at your atrocious use of the English language? This applies to all of you out there; check your letters to make sure that, even if the subject matter is utter garbage, they read well. As for your request about the coupon, the reason that magazines such as ours don't print competitions on the back of adverts is that advertisers whinge and moan about their ads being mutilated. It appears that the sound of a weeping advertiser upsets the powers that be too much. As for STE software, I'll see if there's a copy of Pong hanging around.

Sir, Having read issue No.95 1st of September the list of winners for the Yolanda competition, I was surprised to see my name included as one of the winners. Up to date, their [*sic*] has been no sign of the disk arriving at my home. Have I been forgotten, or has somebody made a mistake in the number of winners or disks, that were available. I would be pleased if you can let me know what is happening about this matter and oblige.

Yours, anonymous.

PS in issue 96, page 56 there is an error, not a spelling error. Has anyone else spotted this?

Dear person, Oblige? Me? Get ahead of yourself. The Yolanda comp did run into some trouble but I have been assured that this is now cleared-up. So, much as I hate to say it, I'm sorr, I'm sorrrr-orr-or, I apologise, alright!

As for your "there was a mistake but I'm not telling you what it was to naa naa na-na naa and yarr-boo sucks" comment, if there is one thing I despise it has to be mysterious pedantry. A prize goes to anyone who can tell me what the mistake was. Any more pedants will have their retina sliced off with an atomic wafer-scaled, but very rusty nail, if you see what I mean.

QUICK QUIZ



• David Vine, rumours in the Centrefold offices say that this is the man to replace Bob Holness when he becomes the next Dali Lama

Here we go with yet another Quick Quiz. Due because I have been out of my tree and off my face (or traced as it is known in hip circles) after dosing myself with Neurofen, and Mad Margot's patent cold cure and scabies salve, I've had the flu, I have decided to present a virtual reality prize to the lucky winner; three of William Gibson's cult books (I can't be bothered with them).

For the competition itself we proudly present the Centrefold version of Bob Holness' neurally taxing *Block Busters* TV quiz and cult visual experience. Of course we'll begin with "A 'P' please Bob".

"What P was a Commodore golden oldie?"

An A please Bob.

"What A is large company which makes STs?"

I'll have an H please Bob.

"What H goes with Disk, Drive, and Bastard?"

If you can answer the questions before our panel of Emllyn Hughes, Ian Botham, Bill Beaumont and St David Platt you will win the prizes. Send your entries to "I'll Have A Prize Please Tim". Centrefold, *New Computer Express*, 30 Monmouth Street, Bath BA1 2BW.

TREFOLD

Tale Spin: Stories from the other side

Tales Spin, the place where dreams become reality, the cyberspace of *Express*, the virtual reality of the computer magazine market. Do you have any stories? Send them in and I'll consider printing them. Then I'll send the office sprog out with a prize.

D-WRONGO

We had a letter addressed to *Computer Shopper News* delivered this week. Oh very funny. What with *Shopper* making rash claims that it's the biggest and the best and the hardest and wibble, wibble, this struck us all as highly amusing. The letter dribbled on about some 8-bit show.

ODE-DEAR

What follows is a poem from the 60s called *All Watched Over by Machines of Loving Grace* by Richard Brautigan. It really is horribly embarrassing:

"I like to think (and the sooner the better!)/ of a cybernetic meadow/ where mammals and computers/ live together in mutually/ programming harmony/ like pure water/ touching a clear sky.

"I like to think/ (right now please!)/ of a cybernetic forest/ filled with pines and electronics/ where deer stroll peacefully/ past computers/ as if they were flowers/ with spinning blossoms

"I like to think/ (it has to be!)/ of a cybernetic ecology/ where we are free of our

labours/ and joined back to nature/ returned to our mammal/ brothers and sisters/ and all watched over/ by machines of loving grace"

Conclusive proof that LSD fries your brains.

NOT RIGHT ON

There once was an artificial intelligence program called *Tale-Spin* (seriously, Prof Roger Schrank of Yale wrote it) which attempted to write children's stories with characters who could interact. These are few examples of its work:

"One day Joe Bear was



• Nigerian potto

hungry. He asked his friend Irving Bird where some honey was. Irving told him there was a beehive in the oak tree. Joe threatened to hit Irving if he didn't tell him where the honey was."

Whoops. Try again...

This time Irving has told Joe about the beehive and no threat of violence ensued but... "Joe

walked to the oak tree. He ate the beehive."

Wrong again. What about this...

This time Irving doesn't even tell him about the beehive so...

"Joe offered to bring him a worm if he'd tell him where some honey was. Irving agreed. But Joe didn't know where any worms were, so he asked Irving, who refused to say. So Joe offered to bring him a worm if he'd tell him where a worm was. Irving agreed..." and so on.

Conclusive proof that Enid Blyton was a computer (not really, Enid's executors.)

IT NEVER WAS. WAS IT?

In 1950 Norbert Wiener produced a report called *The Human Use of Human Beings*. It was a cut down version of his 1948 work *Cybernetics*. Blimey that was a while ago.

MORE READER ADS

Yes, those free reader ads drew some wonderful responses. Try these two.

From P Tatman of Gosport, Hants

"To 'M' my loving wife. I love my Amiga. But always remember I love you more. Here's to the next 100 years. Your one and only 'P'."

Ahhh innit lovely.

From K Hugill of Coventry

"Please draw this advert out of the draw. I could do with a £100 and send it to K Hugill..."

Cheeky beggar.

CAPTION FULL STRENGTH

Here we have a picture of two old men, a PC, and a CD. So far, so good. But surely there must be something extra to pep it up. What are they doing in the Munster's house? Do they realise the importance of the disc which they are holding? What is on it? Do you know? Write me one witty caption; it could be in the form of speech bubbles or it could be a straight picture caption. If the general consensus in Centrefold corner is that your entry is witty, apposite and clean enough, it will be printed and you will win a prize of my choice. Don't forget to tell me which computer you have, and please mark your entries with the issue number.



FROM THE ARCHIVE

I hope you've recovered from last week's mega-archive explosion, because I most certainly have not. Being the new boy in the office, only 20 issues, I hadn't realised that the rest of the team would blub uncontrollably at the mere thought of issue 0. Bloody pathetic nostalgia freaks. You will have noticed that lots had to be left out because it was just not up to the amazingly high standard expected. Anyway, this week we're back on the tracks with the normal person-sized Archive. So, what happened a year ago this week?

YOU CHEETAH, I'M TELLING YOUR MUM

Pow! Zock! Wham! and other such exclamatory remarks. Cheetah announced the imminent arrival of its Defender lightgun for the Amiga and ST. Already available for the Speccy, and included in the C64's Light Fantastic, the piece was to come with bundled software. How lucky were you feeling punk?

DEBASE dBase DEALINGS

Reading-based CyberSoft were busted by FAST with the help of Ashton Tate to the tune of £12,000. The reason for this was that Cybersoft had been selling dodgy copies of dBase III. When its premises were searched some 1,300 illegally copied software packages were discovered. There were also 700 copied manuals. Ashton Tate's boss, Paul Sloane commented "We will pursue any such cases that come to our notice and we're extremely relieved that there is now the legal protection to make this possible."

INTEL-IGENT

Intel decided to set up offices in Europe. It opened a major chip shop in the Republic of Ireland.

STABBED IN THE MAC

Apple Macintosh and one of its Japanese dealers were to be investigated by the Japanese Monopolies Commission. It seemed that the Mac lads had been using strong arm tactics in order to flog their products in the land of the rising Yen. Apple had been accused of telling its dealers not to bother mending any equipment unless it had been imported directly via the company. The dealers, Canon Sales had also allegedly "pressured" four magazines not to take advertising from unofficial importers. Both Apple and Canon had their offices searched by officials from the commission (for what is another question).

MERRY BLOODY XMAS

AAhhhh! Urgghghgh! Expletive deleted and then some! It was, only October, and 1989 years ago the three wise men would hardly have set off across the desert, Joseph and Mary would still have been in Nazareth and Herod would have been in a reasonably good mood. However, 1989 later Alternative Software was already tracking down Santy Claus for a new £2.99 Christmas game. Happily, a percentage of the profits were to go to Save the Children.. ahhhh.

HACKER DELIGHT

The Complete Virus Handbook was released. Costing £14.95, the book listed 74 known viruses, evaluated 39 virus killers, and gave detailed analysis of various tactics and techniques of viral protection.

BULLISH

French company Bull (you have to remember even now to mention Honeywell don't you? You don't, er alright then knowall) leapt into the PC market with the purchase of Zenith's computer arm. This gave them the edge they needed and of course you've seen millions of Bull PCs lately haven't you.

Well that's it for another year, so keep your head on your neck and keep retching in bars.

THE CODE MONKEYS

GAMES PROGRAMMERS AND
GRAPHIC ARTISTS

We produce state of the art software
for consoles and 16 bit systems.

Interested in joining us?

Send a full C.V. and samples of your
work to:-

The Code Monkeys
Unit 39 Concourse House Estate
432 Dewsbury Road
Leeds LS11 7DF

No telephone applications, please.

If you would like your samples returned
please enclose a stamped addressed
envelope.

PROGRAMMERS

Have you written any good Spectrum,
Amstrad CPC or C64 games that have
been successful in the past but are no
longer earning you money?

£500 TODAY!

If any of the following reflect your
position . . .

- You own the publishing rights to your games outright.
- Your games publishing rights have reverted back to you.
- Your publisher has ceased trading etc., leaving you unclear about the fate of your publishing rights. We can help you with this.
- You think you may be able to get your publishing rights back from your current publisher, but aren't sure how to go about it. We can help you with this too.
- You have acquired publishing rights for other authors games.
- Your personal circumstances don't fit any of the above, but you'd like to know if we can help anyway . . .

. . . and you want to sell (or license) your games to
CodeMasters for an **IMMEDIATE CASH PAYMENT** of
£500 then call **David Darling** **NOW** on **0926 814132**.

You may prefer to mail in a sample to the address below.
Samples will be returned to you if you wish.

**David Darling, CodeMasters, Lower Farmhouse,
Stoneythorpe, Southam, Warwickshire, CV33 0DL.**

***Calling all PROGRAMMERS,
ARTISTS, MUSICIANS AND
GAMES DESIGNERS working
in the leisure software industry***

It's time you joined the organisation that's working to build a more professional industry for you and your fellow software authors: a non-profit making body founded and run by people like you. Together we can share experiences and protect our interests as a group. Join now and make a positive statement that YOU are a professional. Among the benefits of membership, you can look forward to:

- * A 'standard' contract for you to adapt
- * A guide to our contract (in layman's English)
- * A quarterly newsletter 'BLIT'
- * Helpline support service
- * Developers' conference (The second 1990 conference is in October)
- * Discounts on hardware and software
- * Social events (like Go-Karting) where members can meet

All this and more for just £50.00 per year - the price of a couple of games.

For further details either phone the SSA helpline on 0867-35485 or send a large SAE to:

***The Society of
Software Authors***
P.O. Box 598,
Bournemouth, BH6 3YB.

SSA
DEVELOPING A FUTURE



GRAPHIC ARTISTS

We have a list of new and existing projects as long as your arm and, we need the best graphic artists and coders to produce them!

it doesn't matter whether you've been in the business for years or you're fresh from GCSE's - If you can work wonders with a C64, Spectrum, Amstrad, ST or Amiga, we want to hear from you.

Simply write in confidence, enclosing a demo to:-

Paul Rand
Head of Development
Zeppelin Games Limited
P.O. box 17
Houghton-le-Spring
Durham DH4 6JP

◆ For Sale

SPECTRUM UTILS for swap, White Lightning, Gac, The Writer, Zues, want other utils, or Elite for +3. 0232 230410.

CIG ORIGINALS over one hundred boxed. Send S.A.E. or buy the lot for £50 + P & P. 44 Elm Park, Clonmel, Co. Tipperary, Eire.

ATARI STFM, 1MB drive, some games, mouse, cables, all manuals, language disk, good condition only 10 months old. Worth £290 will sell for £190. Tel. 081 681 1940 anytime after 7:30 pm. Ask for Joe.

ATARI 520STFM 0.5 meg drive and colour T.V. (can be separated), two joysticks, £500 + worth of software and blank disks. £230. Contact 0670 822647.

IBM PC Clone at, 20MB hard disk, 3 1/2 + 5 14 hi density floppy, UG A colour screen, £750. 0444 400763 (West Sussex).

CHEAP! S/S internal drive \$15, Synchro Express V2 £110, Learn Assembler book £8, 30 great games : 3d Pool, B Money, etc. £5. Tony 0590 683245.

AMSTRAD 464, DDIdisc drive, TV tuner, colour monitor, loads of games, mags etc. excellent condition £160. Ring Emma on 0665 6036533.

AMSTRAD 6128 software all originals, serious and game, inc Devpac 80, "C", Image Sys, Hits 6, Biggles. Call Gary on 0908 220486 (evenings).

ATARI ST single sided drive, have upgraded so asking £25 inc P + P. Phone Gary, evenings on MK 0908 220486.

A.S.C. COMPUTERS OF BIRMINGHAM

ASC 286 AT - 12MHz Desktop System

HARD DISC	MONO	VGA
40Mb	£849.00	£1049.00 ex. VAT

ASC 386 SX - 16 MHz Vertical System

40Mb	£1099.00	£1249.00 ex. VAT
------	----------	------------------

021-766-7372 RING NOW!

BUY! SELL! EXCHANGE! REPAIR!
NEW & USED

SPECIAL BULK DISK OFFERS

Bulk Packed Disks

	3.5" DS/DD	5.25" DS/DD
25	£11.90	£6.30
50	£22.44	£11.88
100	£42.16	£22.32

Standard Packed Disks (Box 10)

High Density Disks also available on request

	3.5" DS/DD	5.25" DS/DD
1-4	£6.02	£3.44
5-9	£5.87	£3.35
10+	£5.72	£3.27

All disks include label kits and are 100% error free, guaranteed for life. Branded disks available on request. Also printer ribbons, data cartridges, paper etc. Agents for Canon consumable products and Deanes computer office furniture Agents for Imagineering, promoting the Ultra PC range VAT and delivery not included. Prices subject to change without notice.



Education & trade
enquiries welcome

Telephone: 0245 324976

COMMODORE 64, C2N, S/ware, books £100. Also MSX boxed, tape recorder, some S/ware including assembler £65. Phone 0751 33313 N. Yorks.

AMIGA BOOKS. Amiga for Beginners, Basic Inside and Out, Machine Language, Tricks and Tips, Dogs Inside and Out, All Abacus, unused £9. 0224 824904.

FOR SALE STE 4 meg upgrade simms £160. If interested contact S. Black, 18 Paul St, Lochgelly Fife, KY5 9AL.

AMIGA-AMOS C/W extras disk only £25. Aegis Sonix £20. Both originals C/W manuals etc. Details tel 0692 402927.

AMIGA 500 Plus 1/2 mega and extra disc drive and amber monitor still under guarantee. No offers. £350. 081 207 5837.

CBM 1541-11 disk drive and 20 blank disks, hardly used and boxed. Only £80. Phone Jason 0753 660066 (Slough) ~ 5pm.

AMSTRAD CPC 464 colour monitor. Over £510 software/utilities. Manual. Over 35 mags. Light gun. Bargain at £550 ONO. Contact Adam Hawkey 073 084 514.

BBC 'B' 128 K, C/W green monitor, twin and single D/sided drives, joysticks, interface, business, ed. soft. £300. 0296 21227.

COMMODORE 64C computer. Disc/tape drives, reset box, £800 software, black discs. A1 condition £250 ONO. Phone Billericay 622168 after 6 pm.

TOSHIBA T1200FB IMB, Ram twin 720K drives, backlit screen. AS new C/W original software and manuals plus spare battery pack. £600. Yvonne 0985 213665.

EPSON P80 battery/mains thermal printer C/W charger and mains adaptor. As new £75 or swap for Star LC10. Yvonne 0985 213 665.

WHITEROSE COMPUTERS

NO 1 IN WEST YORKSHIRE ... For ATARI ST & AMIGA

ALSO ... A RANGE OF P.C. & P.C.W SYSTEMS, PLUS COMMODORE C64c - NINTENDO & ATARI VCS(2600) HARDWARE ALL IN STOCK.

SOFTWARE FOR ALL THE ABOVE PLUS ... ATARI XL/XE Cass, Disk & Cartridge/7800 - SPECTRUM Cass/Disk - AMSTRAD CPC Cass/Disk.

LEISURE/ENTERTAINMENT, EDUCATION, GRAPHICAL, BUSINESS & MUSIC PACKAGES ALL AT DISCOUNT PRICES 1000s OF TAPES & DISKS IN STOCK!

MONITORS, PRINTERS, DISK DRIVES, RAM UPGRADES, CASSETTE UNITS, RIBBONS, DISCS, STORAGE BOXES, JOYSTICKS & INTERFACES, CLEANING KITS, MICE (C64 - ST - AMIGA - PC ETC.), PLUGS, LEADS, STANDS FOR PRINTERS & MONITORS ALSO DUST COVERS, CASSETTES, HEAD ALIGNMENT KITS & LOTS MORE!!

CHECK OUT OUR ST P.D. LIBRARY OVER 220 DISKS NOW IN!

OPEN 6 DAYS A WEEK 10AM - 5.30PM WHITEROSE ARE TWO THIRDS OF A MILE FROM J26 M62 NEXT TO THE TRAFIC LIGHTS/CROSSING.

WHITEROSE COMPUTERS : BROOKLYN COURT : BRADFORD ROAD : CLECKHEATON : W YORKSHIRE : BD19 4TJ : 0274 851131

MEGA BRILL games Rocket Ranger and Rick Dangerous for sale or exchange on the PC "RR" for £25 "RD" for £20. Phone Dave on 0265 51851.

AMIGA PD for sale. Lots and cheap. Send S.A.E. to : Jason Meachen, 59 Lee Road, Dovercourt, Harwich, Essex, CO12 3SB. (No callers).

PROTEXT V5 word processor for Atari ST brand new! £95. Phone 0529 305611.

SEAGATE ST-125N hard drive, brand new £140. Teac FD-55FR 5 1/4 " disc drive for PC installation £40. Please telephone 051 678 7501, ask for Adam.

EPSON HX-20 no manuals or PSU, built in printer and cassette recorder. Perfect working order. £60. Phone 041 551 0320 after 7 pm.

1541 DISK drive for C-64, 73 disks, games and utilities plus action replay cartridge. £100. Phone 041 551 0320 after 7 pm.

YAMAHA SHS 10 FM digitalkey board midi out pitch bend etc £50. Phone 041 5510320 after 7 pm.

MPS 803 printer plus spare ribbon, two word processing packages £80. Suit Commodore 64. Phone 041 551 0320 after 7 pm.

HEWLETT PACKARD 33E scientific programable calculator PSU manuals £30. Phone 041 551 0320 after 7 pm.

ATARI 520 ST for sale. Mouse, joystick, games, demos and PD etc. Worth £1000 +. £300 ONO. Tel. 0606 46769.

AMSTRAD CPC6128 Stop Press and mouse £30. Rainbird Advance Music System £25. KDS 9 bit printer port £10. Phone 0795 471956 after 7 pm.

SWOP CHINON CP7M multi-mode SLR camera and zoom lens and dedicated flash for clean printer. Call 061 653 8535.

TAXAN 12" colour monitor model visonex RGB/comp. Lead for Amiga included. £75. Buyer collects (Bham area) 021 3512783.

SPECTRUM GAMES for sale. Please send S.A.E. to 203 Long Lane, Boulton, Lancs., BL2 6EX or phone 0204 23357 (for list).

PCW 8512 £350 BBC B £250, RM-Nimbus X-10 £750, Juki 6100 £165, Tandata Modem £95, Dual 40T Drives £75. All excellent condition. Peterborough 0733 232931.

ZX Spectrum Plus 2, many brand new games including Shadow Warriors, Batman The Movie. All for £150. Ring Wolverhampton (0902) 25813.

CBM64 with Database Mouse Art Package, Joystick £120. Games inc. Batman, Power Draft, 13 mags, vgc. All for £170. Ring Tring 7256 after 6 pm.

ATARI Lynx and six games £200 ono. Will exchange plus money for any megadrive games. Tel 081 560 0197.

VETREX game console for sale with many games. Now a collectors item. Any offers. Tel (081) 560 0197.

COLECOVISION System and 35 games plus Atari adaptor and many Atari games and many extra offers. Tel (081) 560 0197.

HIGH QUALITY AND PERFORMANCE 486 AND 386 MOTHERBOARDS

AT/386/25 MHz	OK.....	£450
AT/386/33 MHz	OK Cache	£825
AT/486/25 MHz	OK Cache	£1800

VGA available on request. 12 months warranty and telephone support. (Prices exclusive of VAT and carriage)

BRITEC LTD

26 Avon Road, West Moors, Dorset, BH22 0EG
TEL: (0202) 873421 FAX: (0202) 873421

AMIGA PUBLIC DOMAIN SOFTWARE

Introductory pack only £5.00. Contains catalogue disk, virus disk (packed with virus killers), Utils disk (packed with utilities) and an intro disk (selection of demos).

- * All our disks are £2 each. 10 or more £1.50 each *
- * A wide range of disks rapidly growing *
- * Immediate despatch on all orders *
- * Full range of discount commercial software *
- * Special hardware discounts *
- * Amiga specialists *

FREE PD CATALOGUE or send £1.50 for catalogue disk.

VISA **WCA Business Systems**
Dept NCE, Unit 2,
250 Carmarthen Road,
Swansea, SA1 1HG
Tel: (0792) 473550



TOSHIBA T1000SE notebook portable, locoscript pc, mouse, Diconix 150+ portable printer. As new. All leads etc. Ready to run. Phone Cambridge (0223) 247980.

ATARA ST. Loads of original games for sale from £2.00 or may swap. Phone (0352) 720603.

ATARI ST. GFA draft plus 3.13. Brand new unwanted software cost £149.95. Sell for £80. Tel (021) 422 7579.

C64 tape deck, Joystick, 160+ games inc. latest titles, manuals, etc. Excellent condition £125 ono. Tel (0277) 657485 Essex.

RACE Maker steering wheel, Joystick boxed barely used £25. Use on all computers. Contact Adam on Hawkley (073 084) 514 within school hours.

XT Bridge Board for Amiga 2000 with 5 1/4" drive, disks and books. Never used. £200. Tel (0886) 21599.

PS ION XP, Comms Link, Developer, Formatter 32K Rampack, leather case, spread sheet, WP, finance, shaws book. Tel (051) 625 9963.

CBM 64, light fantastic pack, brand new unwanted gift £115 ono. Tel Mark (0860) 586513.

MODEM Dacom, DSL2123GT, V21/V23 £40. Brother M1109 Printer £60. Serial to parallel conv. £20. Phone (0375) 851706.

1MB Ramcard for Apricot XEN 1 £70. Apricot F1 system 720K drive, mono monitor £95. Rev 9 HD controller £40. Tel (03917) 77339.

EPSON FX/MX/RX 100 sheet feeder £30. Brother CF300 sheet feeder £30. Sirius 10MB hard disk system £125. Tel (03917) 77339.

AMSTRAD 6128 colour plus second disc drive, manuals, books, progs. £200. Tel (081) 567 3678.

AMIGA PD £1.50. SAE Chris Jackman, 3 Albion Terrace, Lexham Road, Litcham, Kings Lynn, Norfolk PE32 2QQ.

LOADS of mags for sale! C64, Spec, Amiga, ST, etc. Cheap. Old + very new inc. tapes + discs! Timo, 10 Valentine Way, Chalfont-St-Giles, Bucks HP8 4JB.

SPECTRUM +2 boxed with manuals, mags, plenty of games including Turracan, Impossamole, etc. for £90 ono. C Bennett, Hill House, Mead Rd, St Cross Winchester, Hants SO23 9RF.

AMIGA Hand Scanner Geniscan, GS4500 as new £120. Phone Ralph (0827) 51738 after 5pm.

AMIGA software (originals) Kennedy Approach, Powerdrome, Balance of Power 1990, Falcon Hostages and many more £70. Tel (0842) 765161 after 6 pm.

SMARTEAM 1200 AT modem Hayes compatible. Auto dial/answer, tone/pulse 300 & 1200BPS boxed. For full details/offer send SAE to MB, L6/G/14 Owens Park, Manchester M14 6HD.

ABILITY integrated package WP, database, spreadsheet, graphics and comms. New Xunus ED, yours for £25. Ring Robert on (081) 864 3154.

AMSTRAD SM2400 modem for sale. 3 months old about 10 H RS used £200. Tel (0709) 555463 and ask for Steve. Call Rotherham after 6pm week days.

ATARI 520 STFM, multiface, STOS, 15 games, 18 other disks, 10+ magazines, very good condition £200 ono phone (0963) 62372.

COMPUTER and electronics mags for sale, all types, good condition. Send SAE to J M Peters, 299 Southway Drive, Southway, Plymouth, Devon PL6 6QW.

NEW Computer Express issues 1 to 52. Offers (0925) 860179 (Warrington) after 6pm.

EPSON LQ1050 24 pin letter quality. Average selling price £580 plus VAT = £667. For sale only £500. As new, with box and manuals (0291) 424526.

SOFTWARE for sale. 115 games for 48K Spectrum £65. 15 games for Commodore 64 £10. All original cassettes. Tel (0902) 373638.

AMIGA 500 + stereo system, over 60 disks, box, Kick off 2, Turracan, Beast 2, dust cover, mouse, joysticks, leads, sell £500. Offers considered, will split (0254) 53195.

AMSTRAD 1640 EGA colour display, twin 360K floppies, 32 meg hard disc full of software, dot matrix printer, mouse and books £750 the lot. Phone Chris (0524) 421400 after 6pm.

AMIGA 500, 4 months old, including ten games (Space Ace, Populous, Player Manager, etc) and joystick and demos. £250 the lot. Phone Chris (0524) 421400 after 6pm.

AMSTRAD PC 1640, EGA colour, dual drives, 32 meg hard card full of software, mouse, etc. Ring (0524) 421400 £750 ono.

AMIGA A500 1 meg, 2 drives, separate keyboard/cpu, Music X, Amas Sampler, joystick and games 8 months old worth £1350 sell for £600. No offers. Phone (0403) 66657.

HAT Software

New!! Learning to Type

A typing tutor for the young and not so young. Ladies, do you want to return to the modern office but are unsure about your keyboard skills? Brush them up at home. The kids can enjoy the "Shoot 'em up" game to improve their skills and speeds.

Only £14.95, or direct from us at £15.45 inc P & P.

Also JIGSPELL, the spelling support program, FIRST PAINT and STAGE 2, our well established graphics packages, and many more. Send for our full list.

21, Wyle Cop, Shrewsbury, SY1 1XB
Tel: 0743 231763

LOTUS Symphony version 2, unused unwanted package £125. Tel (092 572) 2533.

CBM 64 + 1570 drive + 1570 plotter + C2N deck and heaps of software new and old. Only £250 ono. Will consider split. Phone (0296) 82093 - Simon.

ATARI 400/800/XL/XE Educational software: learning music (4 disks) £4, pilot programming language (cartridge and 2 cassettes) £8, master typing (cartridge) £3. Tel (0799) 41599.

ATARI ST replay 4 sound sampler, cartridge + software £25 to you guvnor. Contact Bryan Kennerley, 21 Graham Drive, Rhyl, Clwyd LL18 3RS.

SPECTRUM 128K plus 3 with multiface, 10 disks, 150 games still in box only £200. Tel (0272) 324230.

ICL DRS 286 work station. 3 1/2 and 5 1/4 high density drives. 1Mbb. 4 OHD. For full details/offer send SAE to: M B L6/G/14, Owens Park, Manchester M14 6HD.

DIABLO 630 printer, prof. quality daisy wheel, parallel port, suit Amiga, manual. Tel (0977) 661179 (Doncaster).

SPECTRUM 48K+ 2 microdrives + interfaces, 142 printer Wafa drive multiface speech module modem 100+ games. All for £150. Steve (0858) 462985.

AMSTRAD PPC 640DD laptop with case inc. converter to turn TV into CGA monitor. Ring (0742) 583357 after 1900 hrs £250 ono.

PRINTER, 18 pin, Taxan Kaga KP810, Epson compatible. Good condition £50 ono. Phone Kings Langley (Watford/Hemel) (0923) 265539.

PC software, Space Rogue, Fantavision, Home Accounts. All new and unregistered £50 or will split. Tel (0977) 675601 after 5pm.

COMM 64, light gun, over 55 games, books and manuals, tape into basic part 2 £150 ono. Tel Martin (0252) 874293 after 5pm.

A+ GRI Lynx 2 months old with Cal games and Gates of Zendocon £140 ono. Ring Greg on (071) 253 5764 after 4.30 pm.

TANDY 1000 (IBM compatible) 5 1/4 floppy drive, joysticks, lots of software, 14" colour monitor £250 (will split). D Stirling (051) 677 9786.

ST Basic with 322 page manual £5.50. Also serious ST contacts wanted. R Somerville, 56 Leamington Terrace, Edinburgh, EH10 4JL.

PCW Software Cracker, 2 prospell dial-up, many more plus games, Cyrus II, Chess, etc. Tel (0242) 230638.

MODULATOR for Amstrad CPC range. Connects any CPC to colour TV. Unused £20. Tel (0925) 66591 (evenings).

STE Simms to upgrade 520 STE to 1040. 2 sets available £20 each. Tel Jim (0232) 241573 (day) or (0232) 794812 (evenings).

FOR BBC B Crossware Z80 Cross Assembler System Rom Disc and manual. Boxed as new £20 Worthing (0903) 211559.

88 back issues of NCE from No 13 onwards. Offer money or something Amiga related. Buyer collects. Phone (04023) 81033 (Essex).

FOR BBC B Solidisk 32K sideways Ram with software and manuals. Also light pen with manual. Any reasonable offer. Worthing (0903) 211559.

ATARI 520 STE, stereo sound, 4096 colours, joystick, 26 games, power basic magazines, £300. Tel Southend (0702) 615886.

EXMOOR

The world of the Soaring Buzzard, of the Red Deer, of Lorna Doone and the Exmoor Pony. And now the home of Exmoor Software Public Domain library for the ST. - a library that is different, where it's not the disks that are listed but the individual programs. You choose what you want and we make up the disks accordingly. Send S.A.E. for full details

EXMOOR SOFTWARE
 Queen Street, Lynton, Devon. EX35 6AQ

Full range of Budgie Licenceware also available

mph COMPUTER SPECIALIST

10 Chandlers Court, Eaton, Norwich. NR4 6EY
Telephone: Norwich (0603) 503382

AMAZING NEW DEALS!

10	3.50" Disks+.....£6.75	10	5.25" Disks+.....£4.00
25	3.50" Disks.....£15.00	25	5.25" Disks.....£9.50
50	3.50" Disks.....£28.00	50	5.25" Disks.....£18.00
100	3.50" Disks.....£54.00	100	5.25" Disks.....£34.00
80	Capacity boxes£6.50	100	Capacity Boxes£6.50

ALL DISKS COME WITH 2 FOR 1 LIFETIME GUARANTEE: 3.5" MADE BY SONY.

IRISH readers. Datatronics discovery 2400 Baud modem only £200. Internal modem only £140. Excellent make. External type suits Amiga and PC. Tel: Alan (0404) 67724.

ELECTRON Plus 1 interface with view cartridge, cartridge game, loads of cassette games including Elite, manual, books, magazines, some with cassettes. Yours for £90. Good condition. Tel (0235) 814806.

AMIGA A501 1/2 meg expansion + 3 1/2" disk drive plus 6 original games. £100 exc postage. Will split., eg. DD £40, Exp £40. Games £30. Exp + DD £65. Phone (0722) 790776 after 6pm.

AMSTRAD Disk, originals and cruiser, joystick. All excellent condition £50 ono. Tel (0202) 397920 ask for Tim after 4pm not Monday or Tuesday.

AMSTRAD CPC green monitor, four joysticks, games, one year old worth £800 sell for £420 ono. Ask for Paul or Peter on (0384) 235430.

PCW 8256/8512 Master Scan and Master Paint, Print Head, Scanner and Graphics software as new £45. Tel (0672) 810157.

AMSTRAD PCW 8512, DTP, mini-office, scrabble, lots of books, mags, discs and ribbons £350 ono. Tel (0296) 436172 (Aylesbury).

AMIGA A590 hard drive, £250, 1084 monitor £120, A500 1.3, 5 months old, 1MB, £200 of software, £350. Call (0224) 824904.

OVER 40 quality Amiga games for sale. All originals. Total value £1000. Will sell whole lot for just £400 ono. Contact Anthony (0703) 440084 anytime.

SOFTCELL SUPER SAVERS

PC Share Ware
£1.75 Per Disk Fully Inclusive

PC Type II (3).....	£5.00
NY Word (3).....	£5.00
PC File dB (3).....	£5.00
PC File (3).....	£5.00
Front Office (3).....	£5.00
PC Type (3).....	£5.00
PC Calc (3).....	£5.00
PC File + V3 (3).....	£5.00
Freeway Accts (3).....	£5.00
Ford Car 11 (2).....	£3.50
Super Astrology (3).....	£5.00
Page Finc. Cont. (3).....	£5.00
£5.00 Set £6.00 3.5	

EGA Pacman.....	£1.75
Deskjet Collection.....	£1.75
Educational Games.....	£1.75
Dr. Sleep.....	£1.75
Laser Letterhead.....	£1.75
Home Records.....	£1.75
Share Spell.....	£1.75
Bar Codes.....	£1.75
Windows Toolkit.....	£1.75
Windows Games.....	£1.75
dbase 4 Tutor.....	£1.75
Food Analysis.....	£1.75
+ 100's more	

COMMODORE STARTER PACKS FROM £498

SCHNEIDER COMPUTERS

- * Quality
- * Value
- * Free Software

10 5 1/4 Discs £16.00, 10 3 1/2 Discs £25.00
For further details write or phone for a FREE catalogue!

Softcell Services, Dept NCE, 25 Maywood, Brynna, Pontyclun, Mid Glamorgan
Tel: (0443) 238630 anytime

CASIO full size midi keyboard, 220 voices, 1000 variant backing tracks. I can deliver £210. Tel (0904) 636371 York.

SPECTRE GCR - Mac Emulator with manual updates turns your Atari into a Mac-Plus. £300. Call Les on 051-733 0369 after 6pm.

ATARI 520 STFM with 1 Meg external drive. Still under guarantee. Lots of games with leads, etc. £200. Tel (071) 474 9760.

ATARI 1040 STFM, £290 ono, PC, speed STE, just £170! ST 512K Ram upgrade chips £30. Ring (061) 881 5663.

HEWLETT Packard Colour Paintjet Printer £600. Pagesetter 2 £50. Digipaint3 £40. Mastersound Digitizer £20. Digiview Gold 4.0 £80. Call (0203) 316420 and ask for Kelvin. NO TIME WASTERIS!!

PRINTERS: MT91 laser quality inkjet and accessories, worth £1100. Sell or p/x 24 pin. Also MT81 DMP Epson compatible with Maxafit £100. Call (0332) 3367642.

ATARI 1040 STE 2 meg Ram SCI 224 colour monitor 50 meg hard drive LC10 colour PRI inter second floppy and software offers - Colin (081) 751 5298.

CPC 464 almost unused bargain £80. Buyer collects or pays carriage (Milton Keynes). Chris (0332) 249855 (work).

C64 software disk and tape all in new condition. Must sell many simulators and strategy. Tel (0543) 424102 after 6pm.

SEGA Master System, games, joystick, control, PAB, vgc. £100. Tel (0745) 337100 ask for Andy.

C64 games, some on disk, all mint condition. Ring now for list and prices. Amstrad printer also for sale £90. (0543) 424102 after 7pm. Tel

CPC Disk software PAS, Cal MT + £15 Pocket Protext £10 Devpac2 £15 Firmware Soft 968 £10. Tel (051) 489 0500.

STE Computer. Seven months old with extras £330. Can deliver Scotland. Tel (0250) 5108.

FOR sale 520 STFM 1 meg drive, 2 joysticks, mouse, over 30 top titles worth over £500, also Master Sound package. Sell for £349. Phone Prestbury 829410.

FOR sale Amstrad PCW 8256 Sage Modem V21, V23, cables, docs, etc., minus software but ridiculously cheap, only £70 ono. Ring Simon (0904) 625016.

AMIGA games: Altered Beast £12, Op. Thunderbolt £12, Chase HQ £12, plus many more for full list phone (0243) 773220.

CASIO FP-40 printer/cassette/interface for Casio Pocket Computers. 40/80 colum. Dot Matrix. Excellent condition £40 ono. Tel (021) 358 6688.

MICRO Vitec RGB colour monitor. Designed for use with BBC Micro, teletext or similar systems. Excellent condition £150 ono. Tel (021) 358 6688.

ATARI 520 STE, 1meg memory £100 of software, all boxed and as new £299 or swap Amiga. Tel (0630) 58329.

EPSOM LQ1000 24 pin printer, slight fault, hence only £100. Also Ringdale Par/Ser Megabuffer (256K) £70. Phone Steve (0245) 329443 evenings.

SCI Sys. Turbo - Kasparov 432 chess, computer scruffy but strong £25. A Jones, 2 Town Mead, Oakford, Devon EX16 9EW or call (03985) 438.

CBM 64 games, Silkworm, Comb at Lynx, Combat School £2.00 each. Cruiser joystick £4.00. Mr Sibley, 65 Granby Close, Weymouth, Dorset DT4 OSR.

AMSTRAD 8256 PCW with printer, locoscript etc. £275. Phone (0744) 27067 Lancs.

FULL programming development system (consists of Amstrad PC, PDS card, Commodore 64 and disk drive). Phone Craig on (0472) 840271 after 6 pm if interested!

LOOK - Zenith PC + NEC Spinwriter and Mannesmann MT86. Updating system, need space. Offers! Del. poss. for some areas. Tel. Dave on (0734) 871054.

TURN your Acornmaster 128 into an IBM compatible 512 board with Dos, Gem and mouse £120 ono. Tel. (061) 486 9457 as new.

COPPER circuit board single sided, new 16" x 4" x 1/16" thick £40 for 100. Phone (0744) 27067 Lancs.

COMMODORE 64, datasette, blank tapes, two backup cartridges, 74 original games, books, manual, desk and joystick. Worth £750+. For sale £150 ono. Nik (0582) 596025.

HOME BREW software for the CPC's. Games, utilities, educational programs - cheap and disk or tape write to: A Sill, 19 Sherwood Drive, Skellow, Doncaster, South Yorkshire.

LYNX + three games + power adaptor + comlynx cable £130. Still has 4 months warranty. Phone (041) 639 1567.



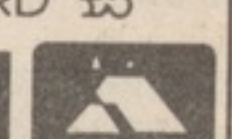
AMIGA PD AT THE LOWEST PRICES

WE'LL BEAT ANY PRICE

INCLUDING SPECIAL OFFERS

BY FIFTY PENCE PER DISK

SAME DAY DESPATCH OF ORDERS PLACED BEFORE 4PM
POSTAGE AND PACKING FREE OFFER ENDS 25TH OCTOBER 1990
MINIMUM ORDER £2 MINIMUM ORDER BY CREDIT CARD £5

  **0295 262029 9AM-7PM** 

NOVA NCE OFFER, 30 Parsons St
Banbury, Oxon OX16 8LY

Cheques/POs Payable to NOVA

BBC Model B, dual disk drives, Z80 2nd processor, monitor, SWR, DFDC, Roms, manuals, books, software £350. Phone (031) 6694096.

CBM64, 1541, C2N datasette AR cartridge plus many games only £175. Phone (081) 643 4949 after 6pm.

AMSTRAD CPC464 good condition, 30 games, light pen, colour monitor, joystick £180. Call Darren (081) 679 8258 after 7pm. Not Mondays or Tuesdays.

CBM 64, hundreds of games, tape recorder, power cartridge, joystick, mags. £150. Phone Joe on (0354) 54877 after 6pm.

ATARI ST, games, Run the Gauntlet, Western games, Draggon Ninja £8.00 each. CBM 64 Championship Wrestling, Gauntlet, disk £5 each. Mr Sibley, 65 Granby Close, Weymouth, Dorset. DT4 OSR.

SPECTRUM 48K plus monitor cassette player 100's of games soundbox, loads of mags and books £90 ono. ST Syncro Express £15. Call ev. (0954) 30528.

SAM Coupe, 512K, Int. 3 1/2" disk drive, latest Rom + Dos, leads and manuals, boxed, Ser/printer I/F, sell for £100. Tel: Dave (0285) 860342.

FAULTY ZX8116K Rampak gives odd graphic display, maybe able to repair. Also Oric 1 games as new £15 for ZX81 Rampak £6 for Oric 1 games. Tel (0246) 207765 anytime.

AMIGA PD as low as 50p! Send for list to Jazz, 74 Beams Way, Billericay, Essex CM11 2NR.

CBM 64, disk drive, printer, lots of software - tape and disk - extra add ons. All of it only £400. Phone (0442) 62554 after 6pm. Ask 4 Paul.

MEMORY upgrade chips (18) £15. Stands £5 each. Dr Halo £10. PC Dogs £10. Supercalc3 £10. Dynodex (Filofax type) for Apple £50. Tel (081) 542 2071.

AMSTRAD ADVENTURE P.D.

Don't let your adventures collect dust - Get your work seen!!

A newly formed PD specialising in adventures only is seeking home-brew adventures to include in the collection. Send your tape or disc to:

ADVENTURE PD, 10 OVERTON ROAD, ABBEY WOOD, LONDON, SE2 9SD

For more information send a SAE to the above address.

◆ Goods Wanted

READ NEWTYPE T.M.P. magazine? I love it! Chris Hackman, 3 Albion Terrace, Lexham Road, Litcham, Kings Lynn, Norfolk, PE32 2

WANTER VICTOR Vicki PC with software and manuals. Good condition only. Reasonable price paid. Also extra software wanted. 051 605 0410.

ST DECISION in the Desert by Microprose wanted. Will pay up to £15. Phone 051 645 2997 after 4 pm. Ask for William.

WANTED Broken Amiga 500 any condition considered, must live within 50 miles of south Lincs. Tel (0778) 393470.

ADAMSKI N-R-G CD single wanted or Pet Shop Boys Opportunities (any format) contact Grainger on (0536) 67520.

WANTED Multiface II plus Printmaster for Amstrad CPC 6128. Tel (0203) 362063 anytime.

WANTED Apricot F1E. Sensible prices please. Also required software (Wordstar/Cobol). Ring Nic (0392) 433579.

WANTED Amiga A2000 with or without monitor. Must be in good condition. Cash waiting. Ring (021) 471 3335 Simon.

KYC DISKS

Once only bargain offer!

★ **DISCS 39p** ★

Disc Drives....£60.00

1/2 Meg Amiga A500 at....£45.00

(Postage & Packing £2.85)

Amiga + ST software on offer

Amiga A500 Fantasy at £340 Posso boxes only £15 each

All prices include VAT

Open 7 days a week!!! Cheques & Postal Orders accepted



KYC DISKS

51 Barmouth Road,

Wandsworth, London, SW18 2DT

Telephone: (081) 870 0469 Mobile: (0860) 763 576

VISA

ST CRUSADE in Europe by Microprose wanted. I will pay up to £15. Phone 051 645 2997 after 4 pm. Ask for William.

GAMEBOY cartridges wanted. Will swap or buy. Also cheat sheet for sale - over 60 Amiga or ST cheats. Send £1 to P Hickey, 3 Churchill, Edinburgh.

PCW 9512 required with or without printer. Also PPC512D. Tel (0604) 413601 evenings or (0604) 26223 office hours.

WANTED ST desktop publishing package like Fleet Street or Desktop or Pagestream. Will swap 13 top games. Tel Paul (0733) 78240.

LATEST Amiga stuff, also I wish to speak to Jester of Quartex. Send stuff to Bob Hay, 21 Loser Road, Milton Keynes FR1 2SJ or tel 618324.

WANTED, BBC Master. Will buy or exchange for top class metal detector with extras, cost £500. Tel (0246) 826766.

HELP needed to match Tandy TRS80II printer to Amstrad 1640. Call Torquay (0803) 214413 evenings or write to Flat 3, Lucerne, Lower Warberry Road, Torquay.

WANTED Atari Lynx or Gameboy type portable game machines with extra games if poss. Please tel. (0619) 626377.

WANTED V22bis modem for ST auto answer and dial pref. Tel (0383) 822930 after 6 pm, ask for Steven.

PRINTER head for Okimate 20 printer. G Power, 6 Renoir Mews, N. Bersted, Bognor Regis, W. Sussex PO22 9AU.

WANTED C64 Easy Spell. Newsroom. Clip Art. Print Shop. Please write to Paul, 42 Chesterfield Road, Worthing, BN12 6DD. Disks only please.

PC Software, any vga 3 1/2" games, DTP, Protext, Super Mailshot plus etc. Also Ad Lib, Soundboard wanted and internal modem. Must be reasonable (0782) 324799.

WANTED Pools Prediction Program for ST. Ring Dave (061) 442 6887. Electronic components also required.

ATARI "ST Adventure Creator" software plus manuals wanted. Swap for original software. Also looking for PD source code for the "Adventure Game Toolkit" games. Tel: (021) 422 7579.

MX80TP manual or photocopy needed. Ring (0256) 29994 ask for Tony.

WANTED please. Panasonic KX-P1081 operating manual for this popular printer. Phone Bognor (0243) 867565.

WANTED mouse for Amstrad PCW8000 series. Cash waiting up to £20. Phone (061) 799 1813.

FLEX1 - Dump plus for Atari ST and Star LC10 (colour), and Vidi ST must be working and cheap. (0705) 453985.

RISC User issue 4 volume 1 wanted. Tel Dale (081) 771 9395.

ANY computer system wanted. Phone on Hackney 249 7637.

PC Engine CD Rom unit wanted. Swap for megadrive and Gameboy plus games. Phone Rich 051 922 7642 mornings only 10 to 12.

USERS manual Apple II Silentyne printer type A2M0032 wanted. Also full circuit diagram for printer and board. Cash waiting Hobden St Blazey. Tel: Par. (072 681) 7166.

UNEMPLOYED St-user seeks unwanted adventure software. All replies acknowledged. D Stanworth, Mid-Y-Don, Conwy Road, Penmaenmawr, LL34 6BL

NEW Atari ST owner requires cheap software. Anything considered. Contact Nick, 61 Tabor Ave., Braintree, Essex, CM7 7SU

64DEMOS wanted on tape only cash waiting will pay for quality/quantity PD utils and demo. D E Mason, Ethorpe Hotel, Gerrards Cross, Bucks., SL9 8HY

WANTED for Spectrum 128+2A, disc-drive plus interface. Offer about £40 for pair. I am a pensioner. Thank you. Post and package paid.

ATARI ST software. Spreadsheet and database originals complete required. Roy 0252 24461 ext.3660

NINTENDO games and any info on Nintendo software. Tel. 0629 55413

Public Domain & Shareware for IBM PC and Compatible Computers

£1.50 per 5 1/4" Disk - £2.00 per 3 1/2" Disk

All our prices are fully inclusive with no hidden extras

Currently we have over 550 discs of IBM PC and Compatible Public Domain and Shareware in our Library including Databases, Utilities, Wordprocessors, Spreadsheets, Graphics, Compilers, Accounts, Accounting and Many Games.

Please send 50p and SAE for our comprehensive disc catalogue, stating disc size (5 1/4 or 3 1/2).

CMB SHAREWARE (Dept CE2), 7 Rookhope Grove, Bishop Auckland. County Durham. DL14 0SW.

COMPUTER REPAIRS

Fixed Super Low Prices/

Inclusive of parts, labour and VAT



**FIRST AID
FOR
TECHNOLOGY**

1 WEEK TURNROUND

* **AMSTRAD / SINCLAIR AUTHORISED** *

SPECTRUM 48K	£14	C64	£22
SPECTRUM 128	£18	VIC 20, C+4	£22
SPECTRUM +2	£27	1541 DISK DRIVE	£36
C128	£29	C2N TDECK	£19
C16	£18	C64 PSU for sale	£27
Amiga	POA	Atari ST	POA

Please enclose payment with item - 3 month warranty on repair.

Please enclose advert with repair.

W.T.S. ELECTRONICS LTD
(NCE 16 08 90)

Studio Master House, Chaulend Lane, Luton, Beds. LU4 8EZ

Tel: 0582 491949

(4 lines)

Standard terms of business apply

WANTED - hard drive for use with ST. All offers welcome. Robert Wood, 16 Gordon Road, Shoreham, West Sussex, BN43 6WE

AMIGA formal issue six, will pay £3.45 if in good condition with disk. Tel. St Albans 0727 58864 after 6 pm weekdays.

WANTED: 1 MEG STFM disk drive internal only. Tel. 0993 84558859 after 5 pm

WANTED: Amiga A590 harddrive (must have packaging and be in VGC). Also required 1.3 version professional page templates etc. 0770 749630

UNDERWURLOE wanted for 48K Spectrum. Write with price to Scott, 20 Nene View, Islip Kettering, Northants., NN14 3LD. Only "Ultime" original

MSX Disc drive wanted and 80 columns cartridge for Spectravideo Express. Also circuit for Pioneer PX7 Dave 0908 501310 Milton Keynes.

MODEM + software for CPC 6128 for disabled user. Must be cheap. Can collect any distance. Geoff, 8 Markland Crescent, Clowne, S43 4NG

PAGESETTER2 wanted (Amiga). Will swap other original title inc C Light, 688 Sub Attack. Tel. 0883 624 988 Paul.

WANTED Amiga 500 computer with modulator. Must be good cond. Ring John on 0904 798031. Good price paid.

DESK-TOP Publishing package for C64 on disk. Also citizen 120D (interface not important). Please write with details and price to Alan Cartwright, 25A Ingleton Ave, Anlaby High Road, Hull, HU4 6AS

WANTED; !590 hard drive for Amiga (good condition only). Also wanted: professional page and CG font programmes. Originals only. 0773 7499630

COMMODORE CBM 8096. Any software or books on this and CBM 4032 may help me. Ring 0703 448893 if have for reasonable price.

BG SERVICES

Spectrum Modems Get into Comms!!

VTX 5000 modems 48K/+2 - £15.00

Or +2a/+3 - £20.00 includes Viewdata software in Rom

Also available the FIXIT at £9.50 - this little add-on enables some 48k peripherals to be used on the +2a & +3. Even Interface 1 works!!

Make cheques payable to: BG Services, 64 Roebuck Rd, Chessington, Surrey KT9 1JX Tel: 081-397-0763

◆ Wanted

GENOA super EGA Bios 2.41 wanted - manual or information. Offers to: J Raskowski P.O. Box 878, Holloway, London, N7 8XY

EPSON PC + /HD manual circuit diagrams or workshop manual. Also same for FX80 printer. Phone Lous 0536 3090

WANTED for my ST Headcoach. Also 3 in 1 football. If you have them, then phone Kevin on 0724 842531

ATARI ST games Stac, Pirates, Gunship, Scrabble, Starglider 2, Balance of Power - all with original docs etc. £45 ono. Tel. 041-632 9903 after 6pm.

COULD someone please help me use the PD program (Mac Bonyo) for the ST that claims to offer "Aladin" compatibility. Please phone 081 883 3812.

APRICOT technical manuals and software wanted for PC/Xi, F2, F1E. Also upgrades for same, drives, ramcards, internal modem, etc. Phone after 5 pm Swansea 0792 581524

BACK numbers of Quanta newsletters, QL user, QL world and other mags, books of interest. Please ring with prices. Mick 081 3027470

MUSIC-X or DRT's user manuals wanted swap for IFF samples or pay cash plus general music x-change inc. tips etc. Ring 0742 6869977 (ICE) now.

AMIGA IFF sounds- send me a disk full - I'll send a disk full back! James Meehan, Pier House, Strand on the Green, London, W4 3NN

USERS handbook for Commodore 64 Easyscript ESC 6440. R Clarke, 10 Saxon Court, Bull Lane, Maldon, Essex, CM9 7HS. Tel. 0621 859499

WANTED Metawindow for C and any C graphic library for Turbo C. Contact Gary, Tel. 071 2728436

GRANDAD bought Amiga 500 but discovered lack of educational programmes for children to 16+. Anyone got a BBC emulator and programs urgent please write. Mr G Sutcliffe, 22 Towers Ave., Deane, Bolton, Lancs., BL3 4JN

STAR LC-10 colour printer with ribbons - only £135. Also Amiga games from £4 each. Tel. 081-558 5698.

ATARI 520STE with Philips CM8833 monitor plus lots of software and covers. Five months old. £499 only. Tel. 021-453 1344.

ATARI 520STFM with external drive, mouse and Metacomco ST Basic £220. Tel. Gary on 0293-34415 after 6pm.

AMSTRAD CPC disk games for sale £5 each. Also Ace mags, issues 8 - 33 + 10 assorted mags £3 the lot. Tel. 0529-305402.

SPECTRUM +2 including complete art package, many games - all original. Selling because of upgrade. Tel. 0364-529290 ext. 210.

BBC B plus disk drive, graphics ROM, books, lots of software - £200 ono. Tel. 0280-700364 and ask for Christopher.

BBC MASTER 128 microcomputer, monitor, 40/80 track drive, data recorder. Little used. £500. Tel. Basingstoke 781408.

SPECTRUM + manual wanted, outlet and Enigma progs on tape or microdrive. Also, ZX Spectrum - How To Get The Most Of It and a broken interface. J Heinrichsons 16 Kimmeter Place, Annan, DG12 6JU.

BBC B for sale, needs tape deck or disk drive, some tape games. Good condition only £75. Tel. 0255-434740 Andy after 6pm.

ATARI Portfolio pocket PC only 6 months old. Sell for £220 ono. Still in box as new. Tel. 0389-52680.

I S DIGITIZER sampling package, Atari ST £35. Timeworks DTP £35, Gunship, FOFT, K Spread, K Seka, Deflektor £5 each. Also Protex, Scrabble, GAC for CPC464 £25 the lot. Tel. 0633-216400

HEWLETT PACKARD colour paintjet printer and pagesetter V2 £600, worth £900. Call 0203-316420

AMIGA Senator 1 mg disk drive for sale. Offers around £50. Phone (081) 440 0095 after 6pm.

PROTEXT V4 for sale for the PC range of computers and compatibles. Brand new £30. Tel. 0705-696543.

COMPUTER MAGS - Zero 1-7, Ace 26-31, The One 13-19 £22 ono. the lot Tel. 0968-75014, ask for Rev. Henderson or leave a message on the machine.

WANTED: Bubble Bobble for the Amiga. Tel. 081-390 2068 evenings.

AMSTRAD PC2286/2386 for sale. Microsoft Windows + MS-DOS 3.5" disk format. Reasonable offers. Tel. 0904-625016.

AMIGA games wanted. Also any offers of help. New owner who ain't got a clue. Steve, 36 Stanway Street, Gorsehill, Stretford, Manchester, M32 0JL.

VARIOUS BBC equipment for sale including keyboard, printer screen etc. All offers considered. Tel. 0277-654095.

SPECTRUM 48K+ with 100 games. Only £100. Call us on 0272-324230.

WANTED 64K MEMORY expansion for CPC664. Also system disks for 6128. Reasonable prices please. Write to S W Bain, 59 Cummings Park Circle, Aberdeen, AB2 7AL

TANDY DMP106 printer. Serial/parallel dot matrix £80 or exchange for CBM MPS printer 0709-853786.

SPECTRUM ROM DISASSEMBLY and other books. Send SAE for details to: M Perry, 216 Marlpool Land, Kidderminster, DY1 15DL.

◆ Announcements

EMULATE! THE independent Amiga Amax user group now setting up all Amax users. Write to Emulate! 126 Nothbrooks, Harlow, Essex.

ATARI ST/STE disk mag issue news, PD, DTP etc. Free! Send blank disk and SAE to Paul Sealy, 31 Hartfield Crescent, West Wickham, Kent.

BEEB Public Domain! Send SAE to: Rafael Jay, Onslow House, Weston Road, Bath, Avon BA1 2XX for catalogue.

ZAT the Fanzine for Spectrum and coupe users! Issue 4 out now. Interviews, strips, and more. Send 60p and stamp to: ZAT, PO Box 488, Tweedale, Telford, Shropshire TF7 4SU.

MESSYDOS problems on Amiga? After placing on mountlist and mounting type dir msh: For the Amiga to recognise the new file system (KFC.).

FDKIT v316e is now available for the PC. The most talked about utility program of the 90's for your (almost) free copy - call (0604) 843034.

STEN - ST enthusiasts newsletter - free, send disc and SAE for your copy. Dave Mooney - 14 School Road, Morningside, Newmains, Lanarkshire (0698) 382380.

80 Column card for the Einstein wanted. Any back no's or Einstein Monthly mag also wanted. G Constable, 77 Barnwell St, Kettering, NorthHants, NN16 0JD

C64 "Magic Micro Mission" cassette (Quicksilver) please. Generous price offered for original in good condition. Call Simon on 021 4227970

WANTED cheap hard drive for Amiga cash waiting. Up to £250 for best offer. Phone 0695 423161 daytime only. Ask for Mike.

SEGA Master system games buy or swap. Andy 0283 761783 or even buy hardware.

BOOK on machine code for the PC. N O Duncan, 10 Anstey Close, Basingstoke, Hants, RG21 3JG

A SMALL SELECTION FROM OUR WAREHOUSE

RRP WAVE		RRP WAVE	
Star LC-10 Mk. 1, Req cable	297.85 151.00	A DDI-1, 1st CPC464 drive	159.95 104.95
FD-1 Second 3" Drive	99.95 49.95	B Multiface 2+	47.95 34.76
Screen Designer CPC Disc	49.00 4.90	E Decision Maker CPC D	49.00 4.90
Locomail PCW8256/8512	39.99 7.90	D CPC 40025 Upgrade Rom	45.00
Amstrad DBASE 2 PCW	69.95 29.95	D Amsoft/Maxell bulk. Ex SW	14.80
Amstrad Supercalc 2, Disc for CPC & PCW RRP £69.95 WAVE £24.95 + £3.45			
Amstrad CPC464+ & CPC6128+ expansion port adaptor now available £11.50 + £1.15 P&P			
3.5" Verbatim bulk	Pkt 10 4.25	E CF2 Maxell 3"	Box 10 15.99

AMIGA P.D. SOFTWARE AVAILABLE SEND FOR CATALOGUE

Spectrum +3 Sinclair light phaser, complete with 6 games RRP£29.95 WAVE £11.99+£3.45
DO YOU WANT TO SAVE MONEY, THEN SEND FOR OUR TRADE PRICE LIST
STATE FOR WHICH PRODUCTS AND ENCLOSE 3 22P STAMPS

ENG. MAINLAND post & ins: (A) £5.75 (B) £4.60 (C) £3.45 (D) £2.30 (E) £1.15 (F) 58p (ANC) 3
Day £10.35 Next Day £13.80, COD + £2.30, Max UK post chg. £8.05 per 20kg/£500. ALL
PRICES INCLUDE VAT. All sales subject to our Trade Terms of Trading.
W.A.V.E. (Trade Dept. NCE 1310)
Walney Audio Visual & Electrical Distribution, 1 Buccleuch Street,
Barrow-in-Furness, Cumbria, LA14 1SR.
Tel: 0229-870000 (6 lines) Hours: Mon-Fri 10.00-5.00

SAM Coupe user group, we issue a by monthly magazine on disk for £1.50 per issue or 6 issues for £8. Contact Brian on (081) 689 1439.

◆ Help wanted

WANTED Vic-20 tape recorder and/or games. Will swap for sharp pocket computer or cash/negotiable. 21 Whitehorse Street, Hereford, HR3 0EP

EPSON MX-80 printer manual required. Buy or borrow. Reasonable price or postage paid. Tel. Nottm 0602 289698 after 6:30 pm

PORTFOLIO Atari/DiP. Good condition only. Name your price! 0251 264962

WANTED cheap hardcard or disk for AT compatible. Any size considered as long as it's cheap. Steve 0705 375409

WANTED any good AD+D games on C64 disk eg. Dragon Wars. Also Salamander2 for sale for the MSX E15. Write to N Raithby, 27 Runswick Road, Grimsby, CN32 8HD

FIRST Word Plus wanted for the ST V3 only. Will pay cash. Ring Stef 0469 60009

A courier HST 19200 Baud Rate Modem. Must be 100% working. Contact me now! Also Amiga contax wanted! See Ya! Tahir, 134 Bellingdon Road, Chesham, Bucks., HP5 2HF

CANVAS Art Program fed up with the on line manual? Need a professional print-out? £4 including folder - Peter Kempley, Aldershot 313566


HELP offered with any aspect of Quickbasic Programming. Write with SAE to: Howard Glynn, 7 The Gardens, Monkseaton, Whitley Bay, NE25 8BG

NM156 is the best, if you have a C64 then forget the rest! If you like a good game then remember my name. N Higgins, 109 Edward Street, Denton,


AMIGA PD for just 80p only. Just started up! SAE for list to R & G PD, 123 Melmount Gardens, Strabane, Cotyrone, N. Ireland. Also cheap PD wanted!

SHEFFIELD'S alternative solution BBS 0742 325232. V21/22/22B1S/32/14.4K HST 8N1 24 hours. Apricot F1 720K floppy drive wanted. Why?

BUG found in Beast 2, Shoot the demon who has encased your friend in electric beam. Then try bribing your friend, see what happens!



AN EDITED COMPANY PRESENTS
TOMB OF DEATH
0898 100 634
DARE YOU ENTER
Calls Cost 33p/min Cheap Rate. 44p Other Times.
C.I.C Marketing. BOX 256. NN1 4AL.



STUNT car racer - your steering still works even after you've left the track. Try steering away from bankings to avoid "permanent" damage.

COLOUR printer driver No PD wanted for Centronic Printer on 386 using windows three quote price. D Price, 59 Lockwood Rd, Northfield, B'irmingham B31 1QE.

ALEX Kidd in high tech for the Sega Master System. How do you find the last peice of the arcade map? P Armstrong, 9 Lovetot Road, Rotherham.

INFORMATION on how good scanning/OCR services please. Jonathan Brazier, 354 Crookesmoor Road, Sheffield S10 1BH. Tel (0742) 684775.

T199/4A User offers help on software and hardware to other TO99/4A users. P Trotter, 80 Martonburn Rd, Grovehill, Middlesbrough, Cleveland TS4 2TH.

PROGRAMMES, Graphic Artists and Musicians wanted to start a group on the C64. Send demo tapes to N Price, 64 Plumberow, Basildon, Essex SS15 5LQ. Tapes not returnable.

◆ Services

IF you own a Sega Master or Megadrive phone John on (0532) 602284 - 2pm - 10pm (only in Leeds area).

PUBLIC Domain available, Coma, Cebit 90, Bacteria and Equalogo £1 each. Also wanted to swap stuff Mars 4, 27 Park View, Eagley Bank, Bolton.

!!! AMIGA GAMES PROGRAMMERS !!!

Want to write Amiga games?

Need help programming the custom hardware?

The **AMIGA GAMES PROGRAMMERS GUIDE** is a new book explaining all aspects of game-writing!

Including Copper, Blitter, Sprites, Audio etc. & source code!

For FULL DETAILS, send an SAE **NOW** to: Ditchburn Computers, 2 The Woodlands, Nunthorpe, Middlesbrough, Cleveland TS7 0PH.

HI, my name's Tony. I have a 2086 (yeah I know). How can I turn it into a (cheapest) 386 (sx) eg. mother board controllers etc. Any info on how easy conversion might be? T Paullazio, 77 Crispin Crescent, Beddington, Surrey CRO 4UJ.

◆ Personal

HELP wanted for Baird's Tale. I'm stuck in Kylearns Tower. I need maps and tips to take me further. Call for Paul after 6:30 pm 091 2970541

BOURNEMOUTH area help wanted with Amiga programming CLI etc. 0202 485730 after 6 pm and weekends. Also 24 PIN printer wanted.

I want to upgrade my PC 10livetti Prodest to at least EGA graphics. I am unable to find out what to do. Can you help? Ring Kier on 0942 714889

DYSLEXIA specific education software needed for kids age 9 + 12. Also interactive keyboard skills tutor for A500. Contact Bob 0819 427391

HELPI Can someone tell me how to get past the draw bridge on Dragon's Lair or any other hints please. Contact Gavin on 061 928 1488

DO you own a Spectrum and a Swiftdisk interface. If so would you contact Gary Bennett, 26 May Terrace, Lipson, Plymouth, Devon, PL4 8PP

PC contacts wanted, swap software and exchange hints, tips of games and C language. GARY, 15 Simmons House, Sussexway, Holloway, London, N7 6RX

BBC pen pals wanted to swap games, hints, pokes etc. Will try to reply to every letter. (More chance with SAE). Age 12. 9, The Avenue, Longlevens, Gloucester, GL2 0BP

PIRACY free mail - traders wanted to exchange demos, utils, music, source code, etc. Write to Hal, 95 Argyle Road, Ripley, Derbyshire DE5 3LH. Please send return postage.

WANTED PC contacts all interests, send list or disk to Gary, 15 Simmons House, Sussexway, Holloway, London N7 6RX.

ATARI ST PD enthusiast wishes to swap or sell PD. Hundreds of disks available. All aspects of st'ing covered. Phone Fraser on (031) 553 2356 for details.

RAMBASE 2 34K Public Domain Database for the CPC 6128. Send disc, SAE, and £1 copying fee to S Fairlie, 20 Montague Road, Saltford, Bristol, Avon BS18 3LA.

TYPING For fast, efficient and what's more cheap service, phone (071) 625 8337.

ADD that pro look to a game/demo. Your own pictures/photos digised for Amiga. Send SAE to 20 Hammond Rd, Horsell, Woking, SY GU21 4TQ.

◆ Free Ads

A500, monitor, 1Mb, printer, modem, external drive, loads software will sell or part exchange for a PC. Anything considered, phone Dave evenings after 6pm on 0761-52450

DATAEASE 4 - bought this year, manuals, tutorials etc. Aduation version database for PC £150. Also Psion organiser model CM, manual £55. Tel. 021-777 8808

MACINTOSH SOFTWARE unused! Trapeze £130, Read Set Go V.4 £250, Image Studio £250, IBM PC: PageMaker £250. All new! Contact Derek on 081-677 4727.

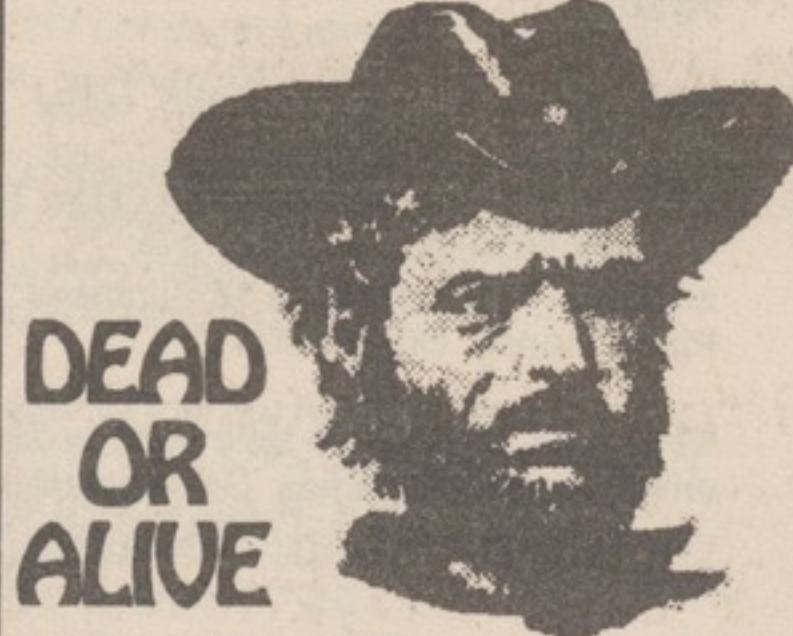
PRINTER - wide carriage, very good condition. Epson compatible £150. Tel. 0784-482422 (Staines).

AMSTRAD 6128 colour plus printer, software and books, genuine bargain must sell £350 ono. Tel. 0328-46915
AMSTRAD PCW 8512 with Mini Office Professional + 7 blank branded disks and case. £250 for the lot. Call Tommy on 081-852 8578 after 6pm.

AMSTRAD 6128 colour monitor and TV. Also mono monitor plus loads of software £275 or will split. Tel. 0793-610325 (Swindon) anytime.

SEGA MEGADRIVE (Scart) with eleven top titles. Everything boxed. Sell for £320 ono. or swap for Super Grafx with games. Tel. 0306-885003

WANTED



DEAD
OR
ALIVE

USE YOUR VOICE
TO OUTDRAW THE
GUNFIGHTER

CASH PRIZES

0898 31 35 94

INFODIAL POBox 36 LS1 4TN Call charges 33p Per Min Cheap 44p Per Min All Other Times

ATARI 520STFM original Silica pack £300 worth of software including 1st Word, Neochrome plus many adventures, games. All boxed, immaculate £200 o.n.o. Phone Mike (Oxford) (0865) 728638.

FOR sale Sega Master System, in mint condition, with five games including Shinobi, Hang-On, Casino Games. All for £100 o.n.o. Phone Paul on (0360) 310803.

MEGADRIVE Batman £26, Phelios £25, Curse £24, Alex Kidd, £16. Phone Samir 081-592 2117 looking for buyer in London area. Also Thunder Force 3 £25.

AMSTRAD 8256 word processor for sale, best offer over £250. Includes light pen, joystick, games, exbasic. Call Doug on (0763) 852324 evenings. Computer desk £10.

AMIGA originals, F18, Starglider 2, Millenium 2.2, Gunship, Barbarian 2, RVG Honda, Ferrari F1 + more £7 each. Also Robot Arm + software. Tel: (0348) 873738 after 6pm.

SEAGATE ST225 hard disk drive, 21Mb capacity. Brand new, unused and still sealed in original packing £150. (Cost over £200). Phone (0280) 813175 eves/weekends.

SPECTRUM +2 with joystick, few magazines, over 110 original games (budget and full price). Bargain at £150 (including postage). Phone Ian on (0244) 345169.

SPECTRUM +3 for sale. Includes joystick, leads, manual, over £150 of games and loads of mags. Phone James on 081-995 1252. Sell for £180 o.n.o.

Let this advertising space work for YOU!!

For Only £56

Contact Tim Partridge

on

0225 442244

SEIKOSHA inked printer ribbon for 5" printer model GP50S. Brand new unopened £4.00 o.n.o. Gold, Silver, Bronze game pack Spectrum £8. Tel: (0602) 411537.

ATARI 520STFM, double sided disk drive, mouse, leads and manual, over £500 games, boxed, as new, in mint condition £210 o.n.o. 081-518 1176.

TWO C90 sides of Soundtracker and sampled music recorded of the Atari ST. Send blank tapes plus £3 to 57 Tennis Court Drive, Leicester, Humberstone, LE5 1AJ.

LOTUS Symphony rel. 2, new 3.5" discs, original, hardly used, great bargain £125. Ring (0743) 231567, evenings ans. phone.

CBM64 colour monitor, disk drive, printer, data cassette, set of Input mags, utilities over 50 games £450 o.n.o. Phone Brierley Hill (0384) 74305.

COLOUR monitor QL 640K manual, programs, games, joystick, £225 o.n.o. Phone 081-948 5477.

SPECTRUM +3 Multiface 3, 2 joysticks, 100+ games and 40+ mags, v.g.c. £150 o.n.o. Ring (0444) 246921 evenings - a bargain not to be missed.

AMSTRAD CPC464 with TV modulator, joystick, £150 games, manual, magazines. Buyer collects for quick sale - £100. Ask for James (0306) 886569.

ATARI STE 2Mb RAM. Excellent condition only £399. Ring Reading (0734) 869181.

BOOKS for "alternative" micros eg: Mk14, Spectrum, CPC, QL, Apricot, Oric, Aquaries, more. S.A.E. Jones, 2 Town Mead, Oakford, Devon, EX16 9EW.

LYNX for sale with five games including Chip's Challenge, Gauntlet 3 and many others. Contact Nick (Isleworth) 081-560 0197.

AMIGA A500 half meg expansion with clock plus second drive, Star LC10 printer and lots of disks and accessories £590 ono. Tel. Bruce on 0476-85627

ACORN AMSTRAD ATARI COMMODORE Z88

Citizen Panasonic Star Aries Epson

PRICE-BUSTING THE LEADING BRANDS

Archimedes Specialist

Established SIX Years

"Solid As A Rock"

Our Own Service Division 041-332-0625

Scotlands Leading Micro Specialists

THE COMPUTER DEPOT

205 Buchanan Street, GLASGOW 041-332-3944

55 Clerk Street EDINBURGH 031-668-4146

Inshops Wellgate Centre, DUNDEE 0382-29653

Licensed Credit Broker *Mail Order*

Ex-Demo
Many
Bargains

SPECTRUM+2 for sale £100. 3 joysticks, plenty of games, Monopoly, Man Utd, Italia 90 and more. For details ring Debbie on 061-737 3467 between 9am and 4pm.

COMPLETE SPECTRUM bulletin board system (includes Micron software, manual, auto answer modem, interface one, 7 microdrives and microdrive cartridges) £100. Phone Stuart on 051-546 4640

INTERNAL DISK DRIVE DS/SS for BBC/PC £30 also DS/DD faulty £15. Microdrive carts £2 each. Remote control joystick for 48K Spectrum £12. Tel. 0642-598935

C64C C2N, Oceanic disk drive, sound expander and cartridge, loads of games and utilities on cassette and disk. All boxed as new £200 no offers. Tel. Manchester 773-6455

AMOS game creator with new extras disk £30. Amiga Action Replay cartridge, boxed, new, unwanted gift £40. Tel: Julian on (0742) 438542.

MODEM, British Telecom Merlin, v.29, 9600, 7200, 4800, 2400 baud rate. Full Duplex 4 port multi-plexor, new and boxed with manual, only £150 o.n.o. Phone 081-866 7152.

PC engine for sale. Plus four games (Pal PC engine) boxed, very good condition. Sell for £160 o.n.o. Phone (0898) 278335. Ask for Steve (evenings).

ATARI 520STFM, 1 megabyte memory, 1 megabyte internal drive, £700 of original software (STOS, Castle Master, etc.), loads of P.D. & accessories, £350. Chris: 021-550 6489 for information sheet.

ALL COMPUTER HARDWARE AND SOFTWARE WANTED FOR CASH OR EXCHANGE

NOTHING REFUSED!!

071 727 0424

AMSTRAD Conise Basic specification £5.50 - RRP £19.99. NCE 43, 47-60, 62-67, 69- 49p each. Amstrad software from 30p. Anthony Brenchley, 25 Glanfield Road, Beckenham, Kent, BR3 3JS. Tel. 081-658 4134

ARCH 310M Colour. RISC-OS, 5.25" disk, buffer software, no serious offer refused. Tel. 0903-35107

COMMODORE PLUS 4 games for sale. Send SAE for list to H Black, 10 Kepplehills Drive, Bucksburn, Aberdeen, AB2 9PQ.

ATARI 8-bit software originals as new. Some classics, games and utilities. Phone Graeme for list - evenings only. Tel. 0203-311670 also Peugeot 309 GTI bumper (offers).

TANDY 102 portable, new, boxed, £200 ono. Magazines C&VG, PCW, Commodore Computing International and other defunct magazines, mainly commodore based. Offers - Tel. 081-579 1507

MAGAZINES for sale, send S.A.E. HP718 hand held competer £100. Centronics GLP 1 9 pin printer £55. Contact Stephen Neal, Meon Ley, Upper Quinton, Stratford-on-Avon, Warwickshire.

ZX Spectrum +2, with £400 software, books, joysticks, plus Citizen 120D printer with parallel interface £180. 4 Hadrians Close, Salendine Nook, Huddersfield. Write to confirm.

ST software Metacomco, Revised Basic with 322 page manual. As new, STE compatible, £5.50. Also serious mono contacts wanted. Electronics. Somerville, 56 Leamington Terrace, Edinburgh.

SECOND HAND software for ST old and new titles from £3. Write or phone Robert Scutts, 18 The Plantation, Blackheath, London, SE3 0AB. Tel. 081-852 3575

ATARI ST-USER June 89 - June 90 £5 (No cover disks). ST World Sept 89, Dec 89 - March 90 - £2. If interested please phone Philip on 0242-251556 between 5pm-8pm.

SMARTWARE II Brand new, complete with all manuals, on 5.25" disks best integrated package money can buy. Only £250. Tel. 0323-893294

AMIGA half meg upgrade, with clock, mint condition, only £30. Phone Barry 0438-365188 after 6pm.

WOW. This is a bargain. Amstrad CPC 464 colour monitor, three joysticks, Robocop, Chase HQ, Turbo Out Run plus more. Must sell. Brill deal. Phone Tom. 0793 740028.

ARDHIMEDES 410/1 upgraded to full 440/1 specification plus Taxan 770 monitor, interdictor and solditools (3D CAD). 9 months old. £11500. Mortgage forces sale. 0273 698560 evenings.

STAR LC10 colour dot matrix printer. Excellent condition, hardly used £175 o.n.o. 081-995 2147.

SEGA Master System, joystick, 22 games including many top arcade hits. Bargain £250, worth over £500 (quick sale) Tel: Southampton 600560.

DISC boxes, 3.5" 80 capacity, 2 new £8, 2 used (as new) £6. 25 discs, DSDD, new, sleeved, £9 (surplus - backups, archived) Coventry (0203) 460410.

ATARI ST software, all boxed originals with instructions, sell the lot for £55. (04024) 57507.

AMSTRAD 6128 stereo amplifier tape deck, Clarion speakers, joystick, lots of mags and games and posters. Call Jaydeep 081-577 5861. Make me an offer, after 6pm.

AMIGA 2000, monitor, printer, hard drive, 2nd drive, video camera, graphics and sound software, 300+ PD disks, games + more £2,700. Tel: (0933) 50691 after 5pm.

AMIGA A500, 1Mb upgrade, 2nd drive, loads of software, books, Panasonic KXP1081 printer. Reluctant sale, £450 the lot. Tel: Hugh (074) 4937 after 6pm.

AMSTRAD CPC6128, mono monitor, datacorder, leads, lightgun, joystick, games, less than 12 months ols, £200. Tel: (0772) 39146 (Preston area) - excellent condition.

ATARI 520STFM, 1 meg internal drive, £250 worth of software (inc. STOS), lots of PD. Sell for £250 o.n.o. Phone (0242) 525034 after 5pm.

ATARI portfolio with 32K RAM card and Atari Lynx with three games for sale. Best offer secures. Tel: (0580) 714445 ask for John.

AMIGA games: Battlechess £10, Blood Money £6, Beast £8, F29 Retaliator £9. All boxed, as new plus more. Phone Dave on Sheffield (0742) 337960.

BARGAIN or what. Amstrad CPC464 Colour monitor, three joysticks, loads of games, Robocop, Chase HQ, Turbo out run and more. Must sell. Phone ABIGA A500 internal memory upgrades for sale. All new with switches and clocks. Low low prices 1.5 MB, \$125 up to 9 MB. Call 0742 686977 now (ICE).

AMSTRAD 6128 with colour monitor, numerous disks and tape games and utilities books and mags. Tel. 0253 56735 after 6 pm £250.

AMIGA originals. Phobia, voyager, Chess 200, Castel Master Plus Crypt, Archipelagos, Nebulus, Commando, Paper Boy, Pipemania, Mind fighter, Italia 90. Most unused. £50. 0224 824904.

FOR sale: Amiga RAM expansion 512K. No clock. Cost new £40. Sell for only £30 inc. p&p. Write to D Clift, 15 Back, Knowl Road, Mirfield, W. Yorks., WF14 9SA. 0924 494690.

FOR sale: Shadow of the Beast one and two incl T-shirts. Cost new £70. Both £35 inc. p&p. D Clift., 15 Back Knowl Road, Mirfield, W. Yorks., WF14 9SA. 0924 494690.

PHILIPS colour monitor, SCART and composite inputs. Suitable for ST or Amiga. Bargain at only £120. Contact Norm after 6 pm on 071 2411936. Can you really afford to miss this bargain?

AMIGA A500, KS1.3, 2 x joystick, £80 books, over 200 disks, mouse, modulator, manuals, computer £280, or all for £500. Phone Jedburgh 0835 63758. Jon, after 6 pm.

AMIGA games, originals, SAE for list. Also many Specky mags. Offers G Power, 6 Renoir Mews, N. Bersted, Bognor Regis, W. Sussex, PO22 9AU.

SAM coupe disk drive, brand new, boxed complete with DOS disk £60. and postage. Phone 0384 893220 evenings.

SPECTRUM +2 Action Pack, Light Gun, + 6 action games, Free dust cover, 128K, Calculator, B+Basic, and 48K, +10 Mega Games, free 3 £9.99 Games, Only £130.

Z88 computer, 128K RAM, 128K Eprom, Z-tape and leads, mains adaptor, printer interface, Z88 mags. Boxed as new. Worth around \$400. Sell £275. Horley 820502

ATARI 1040 STFM, £300. CM8833 £190. Mono monitor £85. External ST drive £60. LC10 printer £125. Lots of software. Phone Roger on 076 886200.

APRICOT F1E, MS DOS, 256K memory, green monitor, single disk drive with software, work processor etc. Phone after 5 pm Swansea 0792 581524

CBM 128, C2N tape recorder, B/W TV, action replay VI, £150 of games, magazines, all for £165 ONO tel. 021-3566219

C64C with 1541II D/D games incl. Rocket Ranger, Space Rogue and lots more. 8 months old. Phone 061 7751004. Ask for Danny after 6:30 pm.

GENISON GS-4500 hand scanner for IBM with OCR and paint software almost new £120 ONO 0903 210152 after 6 pm.

ATARI 520 STFM 1 MEG drive £600 of latest software and Superpack, joystick, mouse and mat, mags, coverdisks, dustcover, manual, leads, ex conf £350 ONO. Robert 081 886 2503

COMPUTER REPAIRS

- ★ FREE ESTIMATES ★ 12 MONTHS WARRANTY ★
- Amstrad, Atari, Commodore.
- Monitors & Printers, Amiga & ST Specialists
- Fixed labour charge + parts & carriage
- ★ STFM POWER SUPPLY REPAIRED £30 ALL INC. ★

COMPUTER SPARES

Parts & Service Manuals for
Acorn, Amstrad, Atari, Commodore, Sinclair
& most makes of Monitors & Printers
All services & goods supplied subject to our terms of trade

GJS COMPUTER SERVICES

37 Bamford Street, Clayton, Manchester, M11 4FE

(Callers by appointment only)

Tel: 061 231 6608



MOUSE REPAIRS

ATARI ST and Amiga Mouse repairs, original or 2nd party, i.e. Contriver 820 & 830, Kempston (Not Naksha types) and Genius. All repairs by return of post.

Standard Service: Button switches replaced. The inside and outside of Mouse thoroughly cleaned, including the rollers, and any internal faulty components replaced.

Only £5.95 incl P+P

Full Service:

As the standard service but also includes the replacement of the mouse lead

Only £9.50 incl P+P

TRACK-IT

Uses a 2 digit LCD display to show the disk drive track number i.e. 0-85, for drive 1 or 2, selectable by front panel switch. Also shows side 0 or 1 and if the disk is write protected. Measures 28 x 65 x 120mm. Works with any model of **AMIGA OR ATARI ST** and any make of disk drive internal or external.

Only £29.95 incl P+P

Send cheque/PO to: **Romulus Data Systems**

56 Menzies Avenue, LAINDON WEST, ESSEX SS15 6SY (MAIL ORDER ONLY)

CVLS Phone Sheffield 0742 884183
Open until 11.00pm

3.5" DSDD Disks 38 pence each

5.25" DSDD Coloured Disks 30 pence each

Branded 3.5" DSDD Disks £5.50 P&P included

100 Capacity 3.5"/5.25" Box £6.50 P&P included

50/80 Capacity 3.5"/5.25" Box £5.50 P&P included

Postage & Packing 7 pence per Disk
up to a maximum of £3.50 postage

Amiga Public Domain £1 SAE lists

Cheques/P.O to CVLS, 92 Firtree Est,
Thurgoland, Sheffield S30 7BG.

C64 mono, 2 joysticks, over 59 games + 64K memory expansion worth £553, price £350. Phone Nick 081-886 5216. N. London. PS. + modulator.

AMSTRAD CPC6128 computer, colour monitor, DMP 2000 printer, joystick, Mini Office 2, Brunword word processor, manuals and disks. Hardly used £220. Tel (0256) 781387 after 5pm.

ATARI 520STFM. Excellent condition, includes: Contriver mouse, joystick, STOS, games, PD, demos, sound sampler, computer link, issues 1-14 ST Format etc. Offers: David 091-389 1577.

ENTERPRISE 64, no offers. Apple IIe system £250 o.n.o. Call for details: Richard (0573) 26032. All computers have leads, manuals, etc.

464 mono, joystick, 120+ games, costing over £400, 20+ Amstrad magazines, worth over £750, sell for £350. Buyer collects. Phone Jason 081-882 3703.

MSX HX-10 computer for sale with 52 games, cassette recorder and manuals, worth over £300, will sell for £80 o.n.o. In excellent condition. Simon: (0656) 771716.

OFFICIAL A500 memory upgrade RRP £150, A501 now selling for £60 no offers. Still boxed as new, call 081-551 3731 after 7pm. Ask for Tak.

CURRAH speech £7.50, Comcan £7.00, Trivial Pursuit £7.00, Graphic Adventure, Creator £12, many more inc. Jack the Nipper, from 50p. Wanted Atari bits: (0721) 20863.

SPECTRUM 128K + 2 plus loads games, including Leaderboard, Op. Wolf and dozens of others, with two joysticks and manuals, just £90 o.n.o. Phone Sean (0293) 28291 (home).

SEGA Megadrive three games, two joypads only £180 or will swap for Amiga A500 no games required. Phone 0268 683250 and ask for Glenn.

55 World Soccer magazines and 38 computer magazines mainly the Home Computer Course 1983 lot of Spectrum and QL items 41 Springmill Street, Bradford, BD5 7EE.

MEGA Drive for sale with four games. Worth £360 sell for £220 or swap for Amiga A500. Contact Stuart on 0223 323212 after 4 pm.

DOLAN XT Turbo 102 Keyboard Monitor, 360K and 1.2 MB drives GEM, DRDOZ, All as new £450 ONO inc. delivery. Tel. Sapcote 045527 3053

100+ disk public domain library (ST) for sale. Offers over £70. Phone Peter on 031 4417952 after 6 pm.

ACORN Electron data recorder. Tapes, manuals, PU. Cheap for quick sale. £20 0293 32461

COMMODORE Music expansion system for C64. Five octave keyboard FM expander. sound studio and original software. All in original box. £35 (Chester) 0244 851066.

SEGA Megadrive, PAL/SCART output. Still boxed, extra joypad, four games inc. Eswat, Forgotten Worlds. Excellent condition, hardly used. £280 ONO. Tel. 091 5181464.

SEGA Mega Drive Inc. Thunder Force 3 and Ghosts and Ghouls. Hardly used. £80. Tel. 80586669 and ask for Robert.

DEMON modem 300/300 1200/75 75/1200 works but requires software for computer only £40 0353 723313.

ATARI 1040 SM124 Loads of software £375 ono. plus brand new SM124 £75 and clock card £18. Tel. 0902-772141 ask for Pete.

ST GAMES for sale, £6 - £10. Crack Down, Strider, Switch Blade, Rick Dangerous, Falcon, Populus, Xenon II, Speed Ball, Silkworm, Dragon's Breath, + 20 others. Phone Al after 6pm on 0420-87856

AMIGA A500 half meg upgrade, monitor. Mint condition £450 ono. or swap for Atari 1040 monitor. Tel. 081-546 5355

A500, monitor, 1Mb, printer, modem, external drive, loads software will sell or part exchange for a PC. Anything considered, phone Dave evenings after 6pm on 0761-52450

DATEASE 4 - bought this year, manuals, tutorials etc. Aducation version database for PC £150. Also Psion organiser model CM, manual £55. Tel. 021-777 8808

MACINTOSH SOFTWARE unused! Trapeze £130, Read Set Go V.4 £250, Image Studio £250, IBM PC: PageMaker £250. All new! Contact Derek on 081-677 4727.

SPECTRUM+3 software for sale. CP/M, Masterfile, utilities and more. All originals with manuals. Various prices. Tel. 0472-887216 for details.

BBC master 128 40/80T disk drive, Watfords Quest and AMX with mouse, loads ROMS, over 60 disks and books £375 o.n.o. Brighton (0273) 412669.

AMSTRAD CPC464 colour computer with manual, free software pack and 10 other games, £180 o.n.o. Also DK Tronics lightpen on tape £12. Phone Adrian (0992) 461235.

PC ENGINE Pal + (takes two adaptors) with three games only £75. Phone Ahmed (0222) 487794 or write: 32 Boverton Street, Roath Park, Cardiff, S. Wales, CF2 5ES. Hurry.

SPECTRUM 48K and data recorder both boxed, as new condition, with manual, books many games £39. Tel: Guildford (0483) 577934.

SPECTRUM Plus 48K (plus leads) with Timex 2040 printer (with paper), joystick and 56 games. Excellent condition. Worth over £250. £50 ONO. Tel. 0394 275011

TATUNG Einstein, twin drives, 80-col card, BBC Basic, Logo, wordprocessor spreadsheet, database, C-compiler 280 assembler games, books, PD, software, approx. 40 3" disks £75 0353 723513

AMIGA A590 hard drive 20 MEG plus 1 MEG RAM, Quarterback software and hard drive system discs £350.

BBC B software for sale over 30 original titles inc. Elite Castle and all ultimate £50 or split 0443 832858 (eves)

TREASURE ISLAND

1 2 3 4 5 6 7 8 9 10

A									
B									
C									
D									
E									
F									
G									
H									
I									
J									

USE YOUR VOICE TO LOCATE THE TREASURE

0898 313 586

Infodial PO Box 36 LS1 4TN Call Charges 33P Per min Cheap Rate 44P all other times

MODEMS! MODEMS! MODEMS!

Large stocks of major brands available at realistic prices
Technical advice a pleasure!

V22 (1200 baud) Hayes compatible from £75

V22bis (2400 baud) Hayes compatible from £90

Fax cards from £100

All modems tested, guaranteed & BABT approved

Supply Solutions: 081-566-3639. Open till 8pm Monday & Tuesday

BOOKS for many micros, also chess books for sale. Jones, 2 Town Mead, Oakford, Devon, EX16 9EW. Also got lots software for Spectrum and CPC.

SPECTRUM 128+2 with VTX5000 modem, joystick, Kempston and Sinclair interfaces. Over £400 worth of software. Complete with manuals. VGC £175 ONO. Phone Win 0962 881426

BBC 'B' colour monitor, disc drives, software, books worth £750. Sell £250 ONO. Phone 051 547 3747

TAITO Space Invaders Arcade Machine - the Classic Machine that started it all! Excellent condition, buyer collects. £150. 061 6531552 (North Manchester)

MASTER 512K co-pro with twin drives and amber monitor, music 5000 synthesizer plus books and software. Offers contact: Miles, Alwyn Cottage, Highfield Road, Bream, Glos.

AMIGA B2000 brand new, 20Mb PC/Amiga hard drive, PC/XT bridgeboard, 5.25" drive, boxed with manuals, installation disks etc. £850 ono. Tel. 0243-774767 after 6pm.

COMMODORE 64 with disk drive, a few disks, two tape decks, £500 worth of games, joystick and Music Maker £350. Tel. 0993-779936

AMIGA A500 with external drive, joysticks etc., loads of software 200+ games, all the latest stuff. £300 no offers. Tel: 0202-479080 after 6pm.

SAM COUPE AND SPECTRUM MAGAZINE!
PROGRAMS, UTILITIES, INFO, IDEAS! NEWS, REVIEWS AND HOMEGROWN SOFTWARE MONTHLY SINCE 1987!

"OUTLET"

SPECIAL OFFER! Latest issue £2.50 to newcomers on:-

+3, DISCIPLE/+D, MICRODRIVE, OPUS, TAPE, SAM DISC OR TAPE
CHEZRON SOFTWARE, 605 LOUGHBOROUGH RD., BIRSTALL, LEICESTER LE4 4NJ

SEGA GAMES SYSTEM with 3 games. Hardly used £30 ono. Also Apple IIe, monitor and disk drive - any offers. 0249-814547

AMIGA power supply, Commocore brand, full working condition £25 including p&p. Phone Barry 0438-365188 after 6pm.

ATARI 520ST 1Mb drive, mouse, software, manuals. Unused £280 ono. Tel. 0767-680253 evenings.

EUROMAX Racemaker joystick (yoke) £15 or swap for other Amiga items. Tel. 0473-713715 between 6-9pm. Hi Centronics (wrench) (viper).

AMIGA ACTION REPLAY cartridge, new, boxed, £45. Freezes monitor etc. First cheque gets cartridge, late ones returned. Send to J S Smith, 45 Maplecroft Crescent, Sheffield, S9 1DN.

COMMODORE 8023P printer with manual. £135 ono. Tel. 021-358 5418 after 6.30pm weekdays.

SEGA MASTER system + light gun, 5 games incl.; Shinobi, Thunderblade etc. VGC and boxed £70 no offers. Tel. Michael on 07742-365243 after 6pm.

SPECTRUMS for sale, plus hardware, software, books for various micros. SAE to Mr Jones, 2 Town Mead, Oakford, Devon, EX16 9EW.

AMSTRAD CPC464 with colour monitor, disk drive, speech synthesizer software, all manuals and magazines £400 ono. Tel. John on 0383-737474

PC Engine (PAL) with six games including New Zealand Story. Excellent condition and 12 months warranty £185 o.n.o. or swap for megadrive. Tel: (0533) 739174 after 5pm.

AMIGA software for sale: all originals - Batman, Nebulus, Rampage, Roger Rabbit, StarRary, A.P.B., S.E.U.C.K., £40.00 o.n.o. Will split, write to: Simon, 68 Richmond Road, Cardiff.



ELECTRONICS

**IF YOU WANT
NAKED LADIES
CUT THROAT PRICES
COWBOYS
TRY ELSEWHERE,**

BUT IF YOU WANT

Good prices, good service and a good product range covering all leading Midi/Music packages, education, art and graphics packages plus business packages please contact us.

FOOD FOR THOUGHT

DON'T THINK CHEAPEST IS ALWAYS BEST
DON'T BUY GREY IMPORTS
DON'T PAY UNTIL YOU'RE SURE
DO REMEMBER THAT AFTER-SALES SERVICE IS WORTH
IT'S WEIGHT IN GOLD

REPAIRS: NO PROBLEM

WE HAVE OUR OWN SERVICE DEPARTMENT

Mon-Thurs 11am-9pm Fri-Sat 11am-7pm

SGM Electronics, 19 Charles Street, Wigan, Lancs WN1 2BP
TEL: (0942) 321435 FAX: (0942) 821273

SHARP IQ7000 with language translator and thesaurus/dictionary cards £150. Tel. Steve on 0892-662698 evenings only.

SPECTRUM+ complete with joystick £30. Alphacom printer c/w 10 roots £55. Microdrive expansion kit c/w two microdrives £55. 30 microdrive cartridges £50 or all for £170. Tel. 0983-402273

BARGAIN OFFER Atari 8-bit 65XE. Some games, cartridge tape deck, joystick - take it off me for £70. Bob, 43 Kingsway, Newcastle, Tyne & Wear, NE4 9UJ. First reply C.O.D.

NEW AMIGA MOUSE for sale only £15. Also Amiga modulator only £10. Phone 061-338 5566 after 4pm and ask for Richard.

ATARI 520STFM with 2Mb double-sided drive. Mint condition with boxes. Sell for £220 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

PC ENGINE (PAL version) with 2 cartridges in mint condition - sell for £160 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

PC ENGINE with latest PAL x2 adaptor plus three games for £95 incl. p&p. Phone 0222-487794. Ahmed, 32 Boverton Street, Roath, Cardiff, S Wales, CF2 5ES any time. Hurry!

ATARI 800XL with data cassette, joystick and 60 original titles (20 full prices) £90 ONO 0443 832858 (evenings)

PC ENGINE (PAL version) with 2 cartridges in mint condition - sell for £160 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

PC ENGINE with latest PAL x2 adaptor plus three games for £95 incl. p&p. Phone 0222-487794. Ahmed, 32 Boverton Street, Roath, Cardiff, S Wales, CF2 5ES any time. Hurry!

MASTER 512K co-pro with twin drives and amber monitor, music 5000 synthesizer plus books and software. Offers contact: Miles, Alwyn Cottage, Highfield Road, Bream, Glos.

AMIGA B2000 brand new, 20Mb PC/Amiga hard drive, PC/XT bridgeboard, 5.25" drive, boxed with manuals, installation disks etc. £850 ono. Tel. 0243-774767 after 6pm.

MSX-2 Philips NMS8245 - complete system. CM8833 monitor, 37 games on disk/cart, mouse, DSDD, MSX printer, datacorder, communications and business packages - £550. Phone for details on 0642-564932

MSX Toshiba HX10, HX-564, Wordpro, Computermates, 'MSX text/cards', cart games including 1942, Nemesis 3. Carts, programming books/mags, joysticks, datacorder £100. Phone for details on 0642-564932

TRADE BINATONE midi hi-fi with CD player and compact disc for Atari STFM or STE or Amiga. Cost £300 - contact Lee on 0226-758256

OLIVETTI PR15 PRINTER for sale £75 ono. If your interested call Andrew on Preston 0772-314947 anytime.

AMSTRAD 6128 colour plus printer, software and books, genuine bargain must sell £350 ono. Tel. 0328-46915

ATARI 8-bit software originals as new. Some classics, games and utilities. Phone Graeme for list - evenings only. Tel. 0203-311670 also Peugeot 309 GTI bumper (offers).

TANDY 102 portable, new, boxed, £200 ono. Magazines C&VG, PCW, Commodore Computing International and other defunct magazines, mainly commodore based. Offers - Tel. 081-579-1507

ST GAMES Thunderbirds £9, Custodian £8, Orbiter £10, Spitfire 40 £9, Strikeforce Harrier £9, Tai-Pan £6, Exolon £7, Championship Waterskiing £6, The Running Man £10. Tel. 0705-462140

SHARP IQ7000 with language translator and thesaurus/dictionary cards £150. Tel. Steve on 0892-662698 evenings only.



from £40.83

We support over 24,000 printer brands, and have a complete range of colour, heat-transfer (for T-Shirt printing), and indelible inks. Colour, multicolour, heat-transfer, and uninked cartridges & refills supplied - Ask for our free catalogue.

Most ribbon re-inking services use our MacInkers, and over 130,000 have been sold since 1982.



MGA SoftCat

(0797) 226601 Fax: 226721

41 Cinque Ports St., Rye, E. Sussex TN31 7AD

(PRICES EXCLUDE VAT, & p&p extra) E.&OE



SPECTRUM+ complete with joystick £30. Alphacom printer c/w 10 roots £55. Microdrive expansion kit c/w two microdrives £55. 30 microdrive cartridges £50 or all for £170. Tel. 0983-402273

BARGAIN OFFER Atari 8-bit 65XE. Some games, cartridge tape deck, joystick - take it off me for £70. Bob, 43 Kingsway, Newcastle, Tyne & Wear, NE4 9UJ. First reply C.O.D.

NEW AMIGA MOUSE for sale only £15. Also Amiga modulator only £10. Phone 061-338 5566 after 4pm and ask for Richard.

ATARI 520STFM with 2Mb double-sided drive. Mint condition with boxes. Sell for £220 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

SPECTRUM+3 software for sale. CP/M, Masterfile, utilities and more. All originals with manuals. Various prices. Tel. 0472-887216 for details.

SINCLAIR 128K +2 joystick, keyboard £50. Light pen + programs and manuals £2, Games ranging from 25p - £1 and magazines 10p each. Perfect condition. Contact Gregory at home on 081-348 3134

ARCH 310M Colour. RISC-OS, 5.25" disk, buffer software, no serious offer refused. Tel. 0903-35107

COMMODORE PLUS 4 games for sale. Send SAE for list to H Black, 10 Kipplehills Drive, Bucksburn, Aberdeen, AB2 9PQ.

AMSTRAD CPC464. Loads of games, joystick £150. also Sega video games system, three games, 9 months old £120. Tel. Simon (Stoke-on-Trent) 261564.

A.C.C. TRONICS Ltd.

IBM COMPATIBLE SPECIALISTS Tel. 021 765 4146

- * Public Domain and Shareware from 50p (5 1/4") & 75p (3 1/2")
- * Free Catalogue on disk - Please state size, 5 1/4" or 3 1/2"
- * XT M/boards from £68.00
- * AT M/boards from £129.00
- * SX M/boards from £295.00
- * Monitors from £65.00
- * Printers from £60.00
- * Printer Cables £5.00
- * VGA Cards from £85.00
- * F.D. Drives from £50.00
- * H.D. Drives from £120.00
- * Keyboards from £30.00
- * Case & PSU from £90.00
- * Other cards in stock

- * Blank Disks 5 1/4" from 30p
- 3 1/2" from 45p
- * CUSTOM BUSINESS SOFTWARE WRITTEN TO ORDER
- * Trade Enquiries Welcome * Call us NOW on 021 765 4146

NETWORK SPECIAL OFFER

- 3 Piece Network System
- * Customised Shareware
- * 20mb AT-12 Fileserver
- * 2 x AT-12 Single floppy workstations
- * All Network cards and software and Cables
- * DOS 3.3 and Manuals
- ALL FOR ONLY £2500.00
- Installation available

AMIGA AND AMSTRAD PD

All your favourite Amiga software - Fish, Amicus, Slipped Disk - from only £1.75 per disk (or £1 for a catalogue), with a donation to charity for each disk sold. Write to:

QC PD, The Warren, Woodland View, Oakham, Rutland.

AMSTRAD PCW 8512 with Mini Office Professional + 7 blank branded disks and case. £250 for the lot. Call Tommy on 081-852 8578 after 6pm.

AMSTRAD 6128 colour monitor and TV. Also mono monitor plus loads of software £275 or will split. Tel. 0793-610325 (Swindon) anytime.

SEGA MEGADRIVE (Scart) with eleven top titles. Everything boxed. Sell for £320 ono. or swap for Super Grafx with games. Tel. 0306-885003

ATARI ST games Stac, Pirates, Gunship, Scrabble, Starglider 2, Balance of Power - all with original docs etc. £45 ono. Tel. 041-632 9903 after 6pm.

MSX-2 Philips NMS8245 - complete system. CM8833 monitor, 37 games on disk/cart, mouse, DSDD, MSX printer, datacorder, communications and business packages - £550. Phone for details on 0642-564932

The largest selection of tape + disk PD on the CPC - including the renowned Malibu demo - from only £11. Send an SAE for your free catalogue detailing over 5Mb of PD to:

Robot PD (NCE), 2 Trent Road, Oakham, Rutland LE15 6HF

ST games for sale many titles Xenon2 Babel many more. I have about 40 to sell inc. some serious stuff and a complete ST format. 0223351138

AMIGA video and graphic application software bundle. Deluxe video, productions, deluxe video, Tantavison and more. Offers 0773749630

AMSTRAD 1640 C-monitor 20 MEG hard disc printer. VGC £650. Atari 130 XE new boxed datacorder PS leads EXT £75. Phone Peter Letchworth 0462684995

FOR sale: back issues of ZZAP! 64/Amiga, including cassettes. Nos. 16 to 66. Sorry, buyers must collect! Write to: Adam Wright, 33 Great Holme Court, Thorplands, Northampton, NN3 1TD

128K Spectrum 14" colour TV. £200 of software Romantic Robot, interface joystick and interface all for £00. Call 0614945497 after 7:30.

COMPUTERTEC HIGH QUALITY AMIGA/ST SPECIALISTS HOTLINE (0502) 584908

HARDWARE U.K. ONLY (Free Delivery) (Courier £5.00)

Amiga A500 F.O.F. Pack inc TV Modulator, F29, Robot Monsters, Rainbow Islands+10 blank disks...£359.95
Amiga A500 Screen Gems Pack Back to the Future II, Days of Thunder, Shadow of the Beast, Night Breed, D Paint II, 10 Blank disks...£359.00
Amiga A500 Class of 90's Pack inc TV Modulator, Educational Pack...£499.95

MONITORS & PRINTERS

Philips 8833 14" Col. Mon...£248.94
Commodore 1084S 14" Colour Monitor...£235.95
Epson LX400 9Pin...£179.95
Epson LQ-550 24Pin...£348.95
Seikosha SP-2000AI 9Pin...£218.95
Seikosha SL-92AI 24Pin...£308.95

QUALITY JOYSTICKS & ACCESSORIES

Competition Pro Clear Extra auto...£14.50
Competition Pro 5000...£13.50
Quickshot II Turbo auto...£9.50
Quickjoy VI Jetfighter-SV126...£13.50
Naksha Mouse...£31.50
Mouse Mat...£4.50
100 Capacity lockable disk box...£8.75
10x3.5 DSDD blank disks + labels...£7.50
10x3.5 DSDD Sony disks + labels...£8.50
3.5" Drive Head Cleaning Kit...£5.50
Disk labels 2p EACH or £15 per 1000

Please send Cheques/Postal orders MADE PAYABLE TO: **COMPUTERTEC**, 1 Lovewell Road Lowestoft, Suffolk, NR33 0RQ. TEL: (0502) 584908

SPECIAL OFFER ON AMIGA 500 UNTIL CHRISTMAS

GAMES
Amos Games Creator...£33.50
Ant Heads...£12.75
Attack Sub...£17.50
Batman The Movie...£15.90
Battle Chess...£16.95
Battle of Britain...£18.75
Cadaver...£17.90
Conqueror...£17.50
Corporation...£17.90
Double Dragon II...£15.50
Dragons Breath...£20.50
Dragons Lair (1MB)...£32.50
Dragons Lair II...£32.50
E-Motion...£17.50
F29 Retaliator...£16.90
Fast Break Volleyball...£12.50
Fiendish Freddy...£17.50
Flood...£16.90
Ghosts & Goblins...£14.50
Grand Prix Circuit...£11.50
Hit Disks Vol 2...£13.50
Hybris...£11.50
Indy Jones Action...£15.50
It Came From Desert...£16.50
Kick Off Extra Time...£8.90
Klax...£15.50
Leisure Suit Larry 1...£19.50
Leisure Suit Larry 2...£21.50
Leisure Suit Larry 3...£21.50
Sim City...£18.50
Speedball...£13.00
Stunt Car Racer...£16.90
Super Hang-On...£14.50
Super Wonderboy...£17.50
Street Fighter...£8.90
Tin Tin on the Moon...£14.75
Trivial Pursuit Genius...£14.75
Turbo Outrun...£16.90
Turbo Cup...£11.50
TV Sports Football (US)...£17.50
TV Sports Basketball...£16.25
The Three Stooges...£12.75
Turrican...£16.90
Teenage Mutant Turtles...£21.50
Untouchables...£17.50
UMS 1...£16.50
UMS 2...£17.50
Voyager...£9.50
Wicked...£8.75
Who Framed Roger Rabbit...£14.50
Wings of Fury...£17.50
Wild Street...£17.75
Xenophobe...£16.50
Xenomorph...£16.90
X-Out...£16.50
Menace...£11.50
Nuclear War...£16.90
Op. Thunderbolt...£17.50
Operation Wolf...£16.90
Outrun...£9.50
Pacland...£9.75
Police Quest 2 (1MB)...£17.50
Populous...£17.75
Promised Lands...£8.75
Powerdrift...£10.50
Precious Metal...£17.75
Red Storm Rising...£17.50
Rick Dangerous...£16.50
Rorke's Drift...£16.90
RVF Honda...£16.90
Aegis Video Tiller...£82.75
Credit Text Scroller...£20.90
DPaint III (Pal 1MB)...£57.50
Real Things Birds...£20.90
Deluxe Video III (Pal 1MB)...£67.75
Digipaint 3.0 (Pal)...£58.90
Photon Paint (Pal)...£12.50
Photon Paint II (Pal 1MB)...£21.50
Professional Draw 2 (1MB)...£158.50
Pro Video Plus...£177.90
Trip-A-Tron...£21.75
Turbo Silver...£97.50
TV Show 2 (Pal 1MB)...£57.00
TV Text Pro (Pal)...£98.50
Video Frame Grabber...£98.75
Video Colour Upgrade...£16.25
XCad Designer...£79.50

Prices all include VAT & P+P in U.K. Europe please add £2.00 per item. Return of post service on stock items. Cheques subject to clearance HOME

MSX Toshiba HX10, HX-564, Wordpro, Computermates, 'MSX text/cards', cart games including 1942, Nemesis 3. Carts, programming books/mags, joysticks, datacorder £100. Phone for details on 0642-564932

TRADE BINATONE midi hi-fi with CD player and compact disc for Atari STFM or STE or Amiga. Cost £300 - contact Lee on 0226-758256

OLIVETTI PR15 PRINTER for sale £75 ono. If your interested call Andrew on Preston 0772-314947 anytime.

MAC S.E. and 30 MEG hard drive and high res. mono. monitor. Sell for £800 call Dave on 051 4282280.

AMIGA 500 hardly used mouse, joysticks, Batman, 10 Star pack, Superbase, Personl, Populace, Lots games, utilities over £500 total. Bargain £350. Tel. 0751 76882 N. Yorks.

SEGA Megadrive, Scaet Ten, latest titles, two joypads, leads, power supply, mint condition. £320 ONO. Tel. 0482 668669 after 6 pm

SINCLAIR QL with manual, software, games, typing tutor, joystick and 10 spare microdrives. Little used, less than 1/2 price at £79. Telephone 0582 786653 evenings.

ATARI 10405STFM C290, CM8833 £190, SM124 C85, LC10 £120, ST2nd drive £50. Many ST accessories. Ring 076286200. Ask for Roger.

C64 software and books for sale. Bristol 864153. Ask for John. (wanted ST contacts).

APRICOT XI MSDOS 2.11. Green screen monitor. Twin 3.55 1.44 drives. Call Bob on 0903752351 with offer.

AMSTRAD PC1640DD mono display, DMP4000 printer, Wordstar, SuperCalc, Accounts Master, software included. All equipment unused, six months old, change of job forces sale £790. (0780) 782620.

AMIGA Cumana external 5.25" drive 40/80 track switch, on/off switch, 8 months old, £75. (0633) 858819 ask for Andrew.

AMIGA 500 with 1 meg expansion, 2nd disk drive, modem and modulator, loads quality software disks, books, etc. Perfect condition, boxed £395 Adam 081-397 3546. Helen 081-399 9429.

ST GAMES including; Kult, Dungeon Master, Chaos Strikes Back, Carrier Command from £2 - £10. SAE to M Norton, Colindale Nurses Home, Colindale Hospital, Colindale, London, NW9.

AMIGA A501 expansion genuine Commodore £50 cumana 3.5" drove £55 both mint and boxed with guarantee. 0705467943

ATARI ST "original" games, Oticitys etc for sale or swap. What have you for cist write to Ricky 26 Fairfield Place, Ruesham worse, WR11 6HE.

PUBLIC domain for the IBM PC. 350 titles available for the price of a blank disk. Tel. 0533713867 for details.

SPECTRUM 48K+ with two joysticks, 120+ games and other software/hardware, Only £100 - all offers considered. Tel. 0836-380187

QL for sale. 128K, microdrive cartridges £50 ono. Tel. 0836-380187

VICTOR Sirius system complete, twin floppies, monitor, keyboard 20 MB hard disk. No software hence £155. Ron Hollingshead, Torquay, 0803 612942

PRINTER Amstrad DMP 2160. slight fault, print head OK. Useable, easily repaired. £40 ONO., Write: G Porter, Eliot, Ashworth Hospital, Mighull, Mersyside, L31 1HW

ST GAMES Thunderbirds £9, Custodian £8, Orbiter £10, Spitfire 40 £9, Strikeforce Harrier £9, Tai-Pan £6, Exolon £7, Championship Waterskiing £6, The Running Man £10. Tel. 0705-462140

PRINTER - wide carriage, very good condition. Epson compatible £150. Tel. 0784-482422 (Staines).

YOU'VE HEARD THE TAPE - SEEN THE VIDEO - NOW TRY THE DISK THE WORLDS FINEST DISKS FROM T.D.K. & K.A.O.

KAO MF2DD
Double sided
1Mb capacity

● SERIOUS QUALITY FOR SERIOUS USERS ● ALL PRICES INCLUDE VAT & FREE DELIVERY ON ORDERS OVER £50.00 ● BRANDED BOXED IN 10's WITH LABELS

3.5"	MF2DD	135 tpi double sided double density	KAO	TDK
3.5"	MF2HD	135 tpi double sided high density	£8.00	£10.00
5.25"	MD2DD	96 tpi double sided double density	£17.50	£27.00
5.25"	MD2HD	96 tpi double sided high density	£5.00	£8.50
			£8.00	£10.00

KAO DISKAROO DISK WALLET CONTAINING 10 BRANDED MF2DD DISKS £10.00
BULK DISCS CHOICE OF 8 COLOURS: Blue, Grey, Red, Yellow, Green, Black, Orange, Fog White

1 MEGABYTE	3.5" MF2DD BULK	50p	£24.00	£48.00
2 MEGABYTE	3.5" MF2HD BULK	£1.00	£48.00	£95.00

(Purchases of 100+ disks will include a 3.5" disk drive cleaning kit free!)

All above disks are 100% error free & warranted free from defects & as such carry a 1 for 1 guarantee

ATARI ST & AMIGA SPECIALISTS
STAR PRINTERS - LC10 £150, LC10 COLOUR £230, LC24-10 £245.
XB 24-10 - £495.00 NEW LC200 - RING LC10 COLOUR - £210.00
Send/call phone/fax for free price list
NB All prices inc. VAT with FREE postage & packing on orders over £50.00

K.C. VIDEO
6 & 8 DONCASTER ROAD, SOUTH ELSMALL, NR. PONTEFRAC, WEST YORKS, WF9 2YZ
TEL: (0977) 649100 FAX: (0977) 643312

Access

VISA

DATA PLUS

THE DATA NETWORK SOLUTION

Complete network installations for the business user

All types of data cabling:

- LAN
- COXIAL SYSTEMS
- TOKEN RING
- BROADBAND

TEL: 0903 766931/0831 468224 (mobile phone)
0784 466743/0860 223708

ALL WORK CARRIED OUT TO THE HIGHEST STANDARD

A & A SUPPLIES

Wide range of Commodore and Atari products including Amiga Batman/Flight of Fantasy Pack at very competitive prices

Please ring Jason for details
0908 216312

14 The Green, Newport Pagnell, Bucks MK16 0JW
FAX: 0908 211057
24 Hour credit hotline
0908 216312

MasterCard

Access

VISA

AUVIAN TECHNOLOGIES

386 16Mhz vertical floor standing case
super VGA card + VGA colour monitor +
2 x FDD + DOS + 40Mb hard disk .

**FREE DELIVERY,
FREE WORD PROCESSOR**

AND

FREE Supercalc.

Cost £1150.00

**IRLANDEX
150 Appleton Park,
Finaghy, Belfast, BT11.**

**Tel: 0232 600075
Fax: 0232 664357**

TECH TIPS



Does your PC keep packing up? Is your Amiga less than friendly? Would your ST try the patience of a saint? Write to Keith Pomfret's Tech Tips and we'll soon see you right. Send your sorry stories to Tech Tips, Beauford Place, 30 Monmouth Street, Bath BA1 2BW.

HELP! PC stuff

A couple of questions to test your grey bits, concerning the Commodore PC20:

1) Commodore recommends the use of the 1352 mouse (presumably their own, expensive, version). Can a third party mouse be used? There seems to be quite a few bargains available.

2) I would like to fit a second drive to the PC20, preferably 3.5-inch unit. Would it be possible, or indeed practical to fit one (or both) of the units from a SAM Coupé? The making of a cradle to carry the drive would be no problem. How about configuring the drives?

3) I would like to delve into the world of DTP on the PC, having previously used the *DTP Pack* from PCG on the Spectrum. I don't wish to spend a vast fortune and have been looking at a DTP package from Elgen by the name of *T_eX*. It's a PD affair, costing around £25. Have you, or any of colleagues at *Express*, had any experience of this product? If so what are your views on it?

Barry Walton, Tyne and Wear.

1. Third party serial mice are available

that connect to the serial port of your PC and after running their own software they will act in the same way as the official Commodore squeaker

2. Silly idea. Try getting the similar (but not the same) Lifetime Drives from EEC on 0753 888866. These drives originally came from Coupé company MGT but on its demise were transferred to EEC. The Lifetime drives have DIP switches allowing them to be configured for nearly all machines.

3. *T_eX* is a document processor which is a bugger to use; it's really powerful but not at all intuitive or WYSIWYG. Try for an early version of *Timeworks* or *Finesse*. These sometimes go cheap more than a canary.

TIP! ST file transfer

With reference to Chris Evan's problem of transferring Degas *Elite* files to an Amiga (issue 98); I believe there is a way to import these files directly, without any need for 'tweaking'.

While I have had no occasion to use this (and therefore test this), I remember reading that when Degas saves a block (as

opposed to a picture), it saves it in IFF format. All that is necessary then is to cut the entire screen as a block, save it, and then rename its .BLK extension to .IFF. The files can then be converted in the normal way using *Cross-DOS* or equivalent.

In return for this tip, I wonder if you could help me with a problem. I have recently had the ATOnce PC emulator fitted to my ST, and while I find it to be an excellent emulator, an annoying problem has cropped up. Like many emulators, even with the *config.sys* file set to use the UK keyboard, the positions of the ST keyboard do not match with those of a true PC keyboard. I would like to know if there is a shareware or PD utility around (on the PC) that can reconfigure the keyboard to a custom set-up. In this way I can set up the layout to match my ST's keyboard exactly, and end the hunting around I occasionally have to indulge in. I would be grateful for any advice in this matter and thank anyone who tries to help me in advance.

Ian McCall, Sheffield

Thanks for the advice on file-fettling. The problem that you're having with the ST keyboard in PC emulation is a new one

on me although I'm sure that one of our PC experts out there will know of some twidget or utility that can do the business. Consult our luxuriant list of user groups (in Shopping Express) for a PC group who may have done the trick.

Full Circle Technologies informs me that the current version (1.18) reconfigures as a UK British keyboard. The upgrade path depends on where you got the product. If it came from FCT, send the original disk back and it'll upgrade you for free. If it came from elsewhere, consult your supplier for details of current situation and upgrades.

ADVICE! Old Cobollers

Regarding the letter from I Keillans concerning formatting CP/M disks and Nevada Cobol. A single drive is all that is required, the PD CP/M emulator beds the format program, then prompts for insertion of the disk to be formatted.

If anybody wants a copy of the emulator and utilities then they can either send the blank disks and SAE to me or a postal order for £5 and I will supply the disks. I also have a copy of Nevada Cobol for sale, if I Keillans is interested.

M Knight, Daventry, Northants.

And another Tech Tipper gallops in to the rescue. If you want to send Mr Knight a fiver, send it to me at *Express* and I'll pass it on. If Mr Keillans cares to write to me again, I'll pass on your address too.

HELP! Prolog epilog

Does anybody out there program in Prolog? It seems to me a rather good language, not that I have ever written anything in it myself. This you see is the problem.

Why do I get the feeling that was not very well described? I'll try again:

I would very much like to learn Prolog as it seems to me to be the ideal language for my purposes. I have recently bought a book called *Prolog for Beginners* which reckons that it could teach, even me, to program on any of the major implementations. This is all fine and dandy for those who know what the major implications are! This is my problem - I do not. (Perhaps this wonderful book could not teach me after all - I'm still stuck on the introduc-

HELP! Making the link over to the Macintosh

At work we have just started using Quark Xpress and MacWrite on the Apple Mac IICx, while at home I use an Atari 1040STFM with either 1st Word (not plus) or Microsoft Write. My home set-up is the 1040, plus Evesham Micros second disk drive and SM124 monitor.

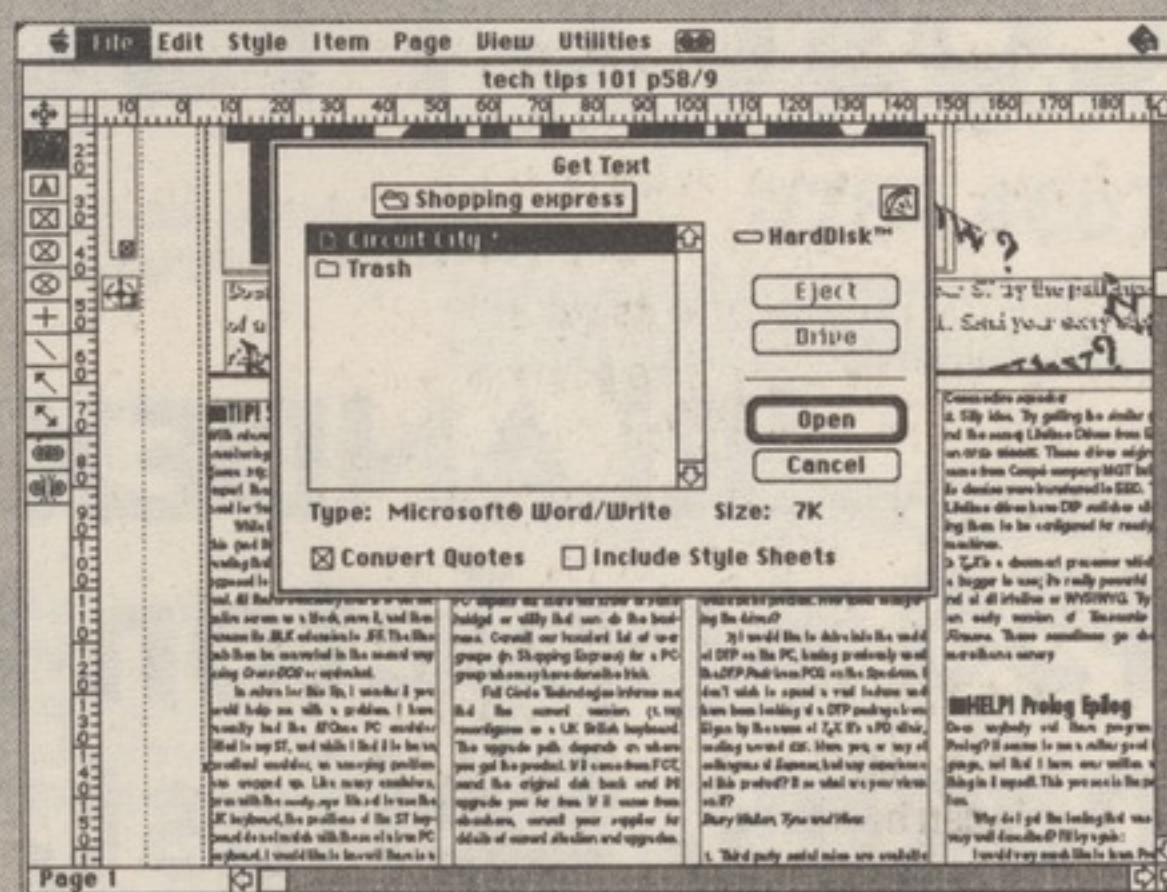
According to the Quark manual, work prepared with Write can be imported onto pages. Since some of my work is done at home it would quite obviously cut out some tedious retyping work if I could write to disk on my Atari in such a way that it could be read straight into the Mac.

Can you tell me whether it is the Atari version of Write that is being referred to and, if so, how do I carry out this operation? Neil McAdam, Oxon.

The simple way to do what you require is to format disks on your IICx as MS-DOS 720K.

The Apple File Exchange program on the Mac will happily do this for you. Use these disks as data disks to save your word processor files on your ST which should read the standard MS-DOS formatted disks.

The files should be saved in ASCII format on the ST. When the disk is placed in the Mac, the files should be copied across to the hard drive using File Exchange again. These ASCII files will happily load into MacWrite or Quark.



• You can indeed get Microsoft Write files from an ST onto a Mac and into Quark XPress, here laying out this very page.

You can use raw Write files if you change the 'File Finder Attributes' with a file editor to the appropriate code for Microsoft Write. I'm afraid I don't know what the code is, but Microsoft Word is type WDBN, creator MSWD, so you could try that or something similar. Have a play and see if you can get it to work. You'll need the MS Write Filter installed in the same folder as Quark XPress first.

tion!)

I don't want to spend a great deal of money but I would like to know a few things:

1) What are these 'major implementations'?

2) Can any of them be used on an Atari 520STFM? Or an Apricot PC/xi, or Point 32 with MS-DOS 3.10?

3) Are there any PD versions that would work well enough to learn the language? I really hope so!

Chris Jones, Norwich, Norfolk.

Prolog is a mystery to us here at Express. We neither use it nor know much about it so we'll have to leave that wide open to the publishers of books on the subject and those thousand or so Prolog aficionados that avidly read Express for the answers.

■HELP! Connections

I am planning to buy an Amiga or Atari ST in the near future, but before I do, could you answer a few questions?

At present I have an Amstrad CPC 464 with CTM 644 colour monitor. Recently I was talking to a man in my local computer shop who said that with a special cable you could use the Amstrad monitor with an Atari ST or Amiga. Could you tell me if this is possible and if so where can I buy this cable.

Could you also tell me what is the difference between an Atari STFM and a STE, is it worth paying the extra money for an STE?

Johnathan Menezes, London E6.

You picked the right week to ask the Amiga/ST/CPC monitor question. Turn to Circuit City on page 39 for the full in depth story on how to do it.

The STE has enhanced graphics and sound, but they are not that much enhanced. I'd stick to the STFM and buy five extra games.

■HELP! Canon fodder

I have a Canon Typestar 90 typewriter and an Amstrad CPC6128. Can I link the two together and use the typewriter as a computer printer?

If I can what do I need and can you recommend a word processing program (including spell checker) to make it work?

D. Clarkson, Newport, Isle of Wight

If the Canon has a parallel port and understands Epson codes, you can plug straight in. If it has a serial port you'll need the Amstrad/PACE serial port to be able to connect the two together.

Either way you'll need to be sure that you use software with the appropriate printer drivers. The combination that you need is *Protext/Prospell* from Arnor. It is available on ROM or disk but the ROM version is at least seven yards better. Arnor is on 0733 68909. You'll need leads to connect the computer to the printer.

■HELP! Not enough info

Do you have any idea where I can get a machine specific printer driver for the Seikosha GP100 printer, as although I seem to be able to print using an Epson RX80 driver, I cannot get bold, italics, underlining, etc? I would rather not have to spend £2 or whatever on a PD disk full of printer drivers 99.9 per cent of which I don't want and am in doubt whether it actually has the right one in or not. If any fellow readers can help, I would be most grateful.

Mark Freestone, North Ferriby, Hull.

We scanned the office for a crystal ball with a serial port but as none was to be found we were unable to work out what machine you use. Oh dear. Try again.

■TIP! Virus time

In reply to George Garven of Ayrshire's plea about the malfunction of his clock either gaining rapidly or the total report by the system of the clock not existing at all. This could very well be a virus or rather one of two viri. The first one accelerates the battery backed up clock at incredible speeds. Two solutions are used for the remedy of this: remove the battery and short out the terminals, dodgy, or run a program called *Clock Doctor*.

The second virus seems to be a mutant strain of the first. This turns off the clock completely. When the system tries to access the clock it reports that the clock is not present. Again the removal of the battery and shorting the connections will solve this, but *Clock Doctor* will not cure

this one.

DON'T PANIC! I suffered with the second strain, even resulting in me sending my memory expansion with on board clock back to the shop. When it returned it was fine for a while, then it went again, but by this time I had found the *Chronos* prog, which will cure both strains of the virus. I have included with this letter, a disk containing *Chronos* and documentation. Could you please forward a copy of this disk on to Mr Garven.

Mr Garven will still have to find the disk which contains this virus, which unfortunately is trial and error as *Virus-X 4* does not recognise this virus (as far as I know).

Andy Bennett, Chesterfield, Derbyshire

But have you got a cure for the flu virus that is doing the rounds here at Express? I've tried chewing *Virus-X* disks and even rung the infamous Dr Solomon but still my head aches and my throat dries.

■THANKS! everyone

Further to my letter of August 18 1990 which appeared in your Tech Tips issue no 93, I should like to pass on to you my thanks for your help with regards to purchasing the silicon ink from WACCI for re-inking printer ribbons. It arrived this week.

I should like to thank Mr A D Francis re the details for the Z88 to Amiga transfer software and lead, these have been purchased and are now in use. Thanks also to Mr T Meredith regarding printing the Roman/Cyrillic alphabet on the Amiga by

way of F Fish's disk which also arrived this week.

Last but not least thanks to Mr P Bates of Derby who also replied to my cry for help.

Once again my grateful thanks to all concerned.

A Dale, West Bridgford, Nottingham.

Which goes to prove that Tech Tips is inhabited by people with something to give as well as people needing help. Keep the queries and the tips flowing in.

■HELP! Where is it?

Way back in the far distant past (*NCE* issue 51) reference was made to the development of a Spectrum Emulator for the Amstrad PC. Since then, a few issues have made passing references to this and the latest news was that such an Emulator was under review at the *NCE* office back in issue 85.

There must be thousands of Spectrum Plus 2 owners who are dying to learn of further details of the above, so please, please, will you publish your deliberations soon as I would like to transfer all my Spectrum Plus 2 software over to my Amstrad PC 1640 before the grim reaper 'boots' my 68-year-old body to the big database in the sky!

Desperately seeking help

Richard Roberts, Norwich, Norfolk.

We saw it, we tried it. It fell over. We tried it some more. It fell over some more. Now we're waiting for a version that works. Watch this column. ■

■ADVICE! A bit on the side about purity

With reference to D Tweedies problem on purity (Issue 98).

"Pure bit not set" is an error generated by the Command Resident. Because the Amiga is a multi-tasking machine you cannot just make any program Resident. Resident programs are programs that can be executed simultaneously by several tasks. The program must be re-entrant and re-executable. This is so with most of the commands in the directory C:.

Commands that can be made resident are known by a flag in AmigaDOS 1.3, called the pure flag. Resident looks to see if this flag is set and only loads if it is. Otherwise you get the message "Pure Bit not Set." You can force resident to load a program which does not have its pure bit set by using Resident command PURE. Be careful, the program will give you a Guru if not suitable for the Resident list. Try running it from two different shell windows at the same time to test it.

Also, see the "Protect" command (6) below.

Syntax: PROTECT filename FLAGS r,w,d,e,s,p,a

- (1) r = file can be read.
- (2) w = file can be written to
- (3) d = file can be deleted
- (4) e = file can be executed
- (5) s = script file
- (6) p = file is pure
- (7) file is archived - hard disk backup use.

Hope this helps.

D Hoy, Hampshire.

On reading your page in issue 98, I was astonished to read that you were unable to help D Tweedie with his problem with his hard disk. The problem concerns the protection bits, in his case,

of the L:Shell-Seg file that he copied onto his hard disk. There are seven of these protection bits: script, pure, archive, read, write, execute and delete and it is the second of these that concerns Mr Tweedie.

Setting the pure bit of L:Shell-Seg allows this program to become resident (which is absolutely necessary with this program). Unfortunately, AmigaDOS does not preserve these protection bits when using the Copy command (unless you tell it to with the NpPro parameter) so his hard disk's L:Shell-Seg program has only the read, write, execute and delete bits set, hence the "Pure bit not set" error!

The solution to Mr Tweedie's problem is as follows: double click on the Shell icon from Workbench and enter:

Protect DH0:L/Shell-Seg +P

This assumes that your hard drive is called DH0. If not then replace it with the correct device name. Another way would be to copy the program from floppy again, using:

Copy L:Shell-Seg DH0:L/NoPro

Now if you type:

List DH0:L/Shell-Seg

you should get something like:

DH0:L/Shell-SSeg 7116-p-rw-d 04-Nov-89 00:00:00

and no error message should be displayed when booting up in future. I hope that this will be of some help to any other of your readers who have also experienced the same AmigaDOS error message.

Roy Freeman, Luton, Bedfordshire

And I'm astonished that we're not all shell-shocked. Thanks for the advice. All tips and advice are gratefully received.

SPECIAL LIMITED OFFER FROM
LEADING EUROPEAN MANUFACTURER

£999

INCLUSIVE OF VAT & CARRIAGE

12Mhz 20Mb HARD DISK 40ms

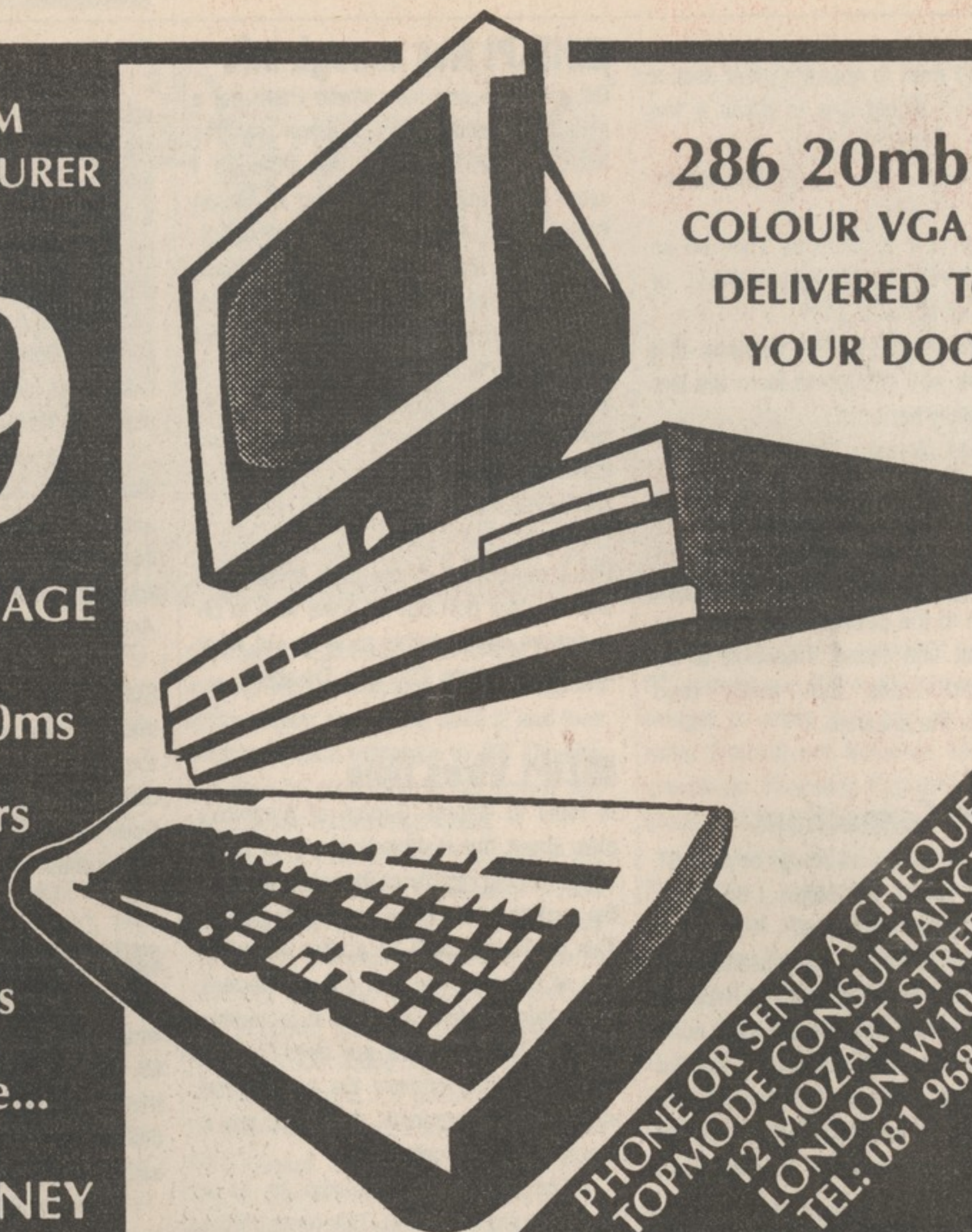
VGA 1020x768 256 colours

Express Carriage

Despatched on cleared funds

Other configurations available...

THE BEST VALUE FOR MONEY



286 20mb
COLOUR VGA
DELIVERED TO
YOUR DOOR

PHONE OR SEND A CHEQUE TO:
TOPMODE CONSULTANCY LTD
12 MOZART STREET,
LONDON W10 4LA
TEL: 081 968 5903

A & K SOFTWARE

TEL: 0454 315823

A & K SOFTWARE, 119 HARESCOMBE, YATE, BRISTOL. BS17 4UE.

688 Attack Sub.....	£16.75	Fun School 3 (7+).....	£16.75	Powermonger.....	£16.75
Adidas Champ Football.....	£16.75	Ghouls 'n' Ghosts.....	£16.75	Projectyle.....	£17.75
Amos (Games Creator).....	£34.90	Hammerfist.....	£16.75	Prophecy - Viking Child.....	£17.75
Amos Sprites 1000.....	£11.30	Hard Ball 2.....	£16.75	Protext Word Processor.....	£79.99
Archipelagos.....	£9.99	Harley Davidson.....	£17.95	Red Storm Rising.....	£16.75
Batman The Movie.....	£13.75	Hero's Quest (1 Meg).....	£24.75	Risk.....	£13.75
Battle Of Britain.....	£20.75	Imperium.....	£17.75	Rorke's Drift.....	£16.75
Battle Squadron.....	£10.75	Infestation.....	£16.75	Secret Agent Sly Spy.....	£16.75
Betrayal.....	£19.90	International 3D Tennis.....	£16.75	Shadow Of The Beast.....	£10.75
Block Out.....	£13.75	Ishido.....	£19.99	Shockwave.....	£16.75
Bloodwych.....	£9.99	It Came From The Desert (1 Meg).....	£13.75	Sim City.....	£16.75
Breach 2 (1 Meg).....	£16.75	Italy 1990 Winners (US Gold).....	£15.75	Sim City Terrain Editor.....	£10.75
Bridge Player 2150 Galactic.....	£21.75	Khalaan.....	£16.75	Space Ace.....	£29.75
Budokan.....	£16.75	Kick Off.....	£12.75	Speedball.....	£9.99
Cadaver.....	£16.75	Kick Off 2.....	£13.75	Starblade.....	£16.75
Castle Master.....	£16.75	Kick Off Expansion Disk.....	£7.99	Subbuteo.....	£16.75
Champions Of Krynn (1 Meg).....	£20.75	Killing Game Show.....	£16.75	Super Gridrunner.....	£9.99
Chase H.Q.....	£16.75	Kristal.....	£13.75	Supremacy.....	£19.75
Chess Champion 2175.....	£20.75	Leaderboard Birdie.....	£16.75	Sword Of Sodan.....	£10.75
Chronoquest 2.....	£9.99	Leisure Suit Larry 3 (Sierra).....	£26.90	Teenage Mutant Ninja Turtles.....	£18.75
Colorado.....	£16.75	Life And Death.....	£16.75	The Keep.....	£16.75
Conqueror.....	£16.75	Lost Patrol.....	£16.75	Theme Park Mystery.....	£16.75
Corporation.....	£16.75	Magic Fly.....	£18.75	Thunderstrike.....	£16.75
Damocles.....	£16.75	Midnight Resistance.....	£16.75	Trip A Tron.....	£19.75
Dragon's Lair (1 Meg).....	£31.75	Midwinter.....	£18.75	Turn It (Shanghai Variant).....	£16.75
Dragonflight.....	£20.75	Millenium 2.2.....	£9.99	Turrican.....	£14.75
Dragons Breath.....	£19.75	Monty Pythons Flying Circus.....	£14.75	TV Sports (USA) Football.....	£13.75
Dungeon Master (1 Meg).....	£15.75	Murder In Space.....	£16.75	TV Sports Basketball.....	£13.75
Dynasty Wars.....	£19.75	Music X.....	£94.99	Ultima 4.....	£18.50
E-Motion.....	£19.75	Necronom.....	£17.75	Ultima 5.....	£18.75
East Vs. West.....	£16.75	Neuromancer.....	£17.75	Unreal.....	£19.99
Elvira - Mistress Of Dark.....	£19.90	Ninja Warriors.....	£16.75	Venus - The Fly Trap.....	£14.75
Escape From Singe's Castle.....	£31.75	Photon Paint.....	£9.99	Welltris.....	£16.75
F19 Stealth Fighter.....	£19.75	Plague.....	£16.75	Wipe Out.....	£13.75
F29 Retaliator.....	£16.75	Police Quest 1 (Sierra).....	£16.75	Workbench 1.3 (DOS).....	£13.75
Fire And Brimstone.....	£16.75	Police Quest 2 (1 Meg).....	£18.75	X-Out.....	£13.75
Flimbo's Quest.....	£16.75	Populous.....	£16.75	Xenomorph.....	£16.75
Flood.....	£16.95	Populous Promised Lands.....	£8.99	Xenon 2, Megablast.....	£13.75
Fun School 3 (2-5).....	£16.75	Power Boats.....	£16.75	Xiphos.....	£16.75
Fun School 3 (5-7).....	£16.75	Powerdroid 90.....	£17.75	Zombi.....	£16.75

Trading hours are 9am - 9pm, Monday to Saturday. All prices are fully inclusive of VAT and delivery.

Cheques and postal orders payable to A & K Software and sent with order to above address.

All items despatched within 24 hours, subject to availability.

We MAY be accepting ACCESS and VISA at the time of publication - please phone to check.

Solid Gold Marketing

£99.95

**IS PROUD TO PRESENT
SEGA MEGADRIVE**

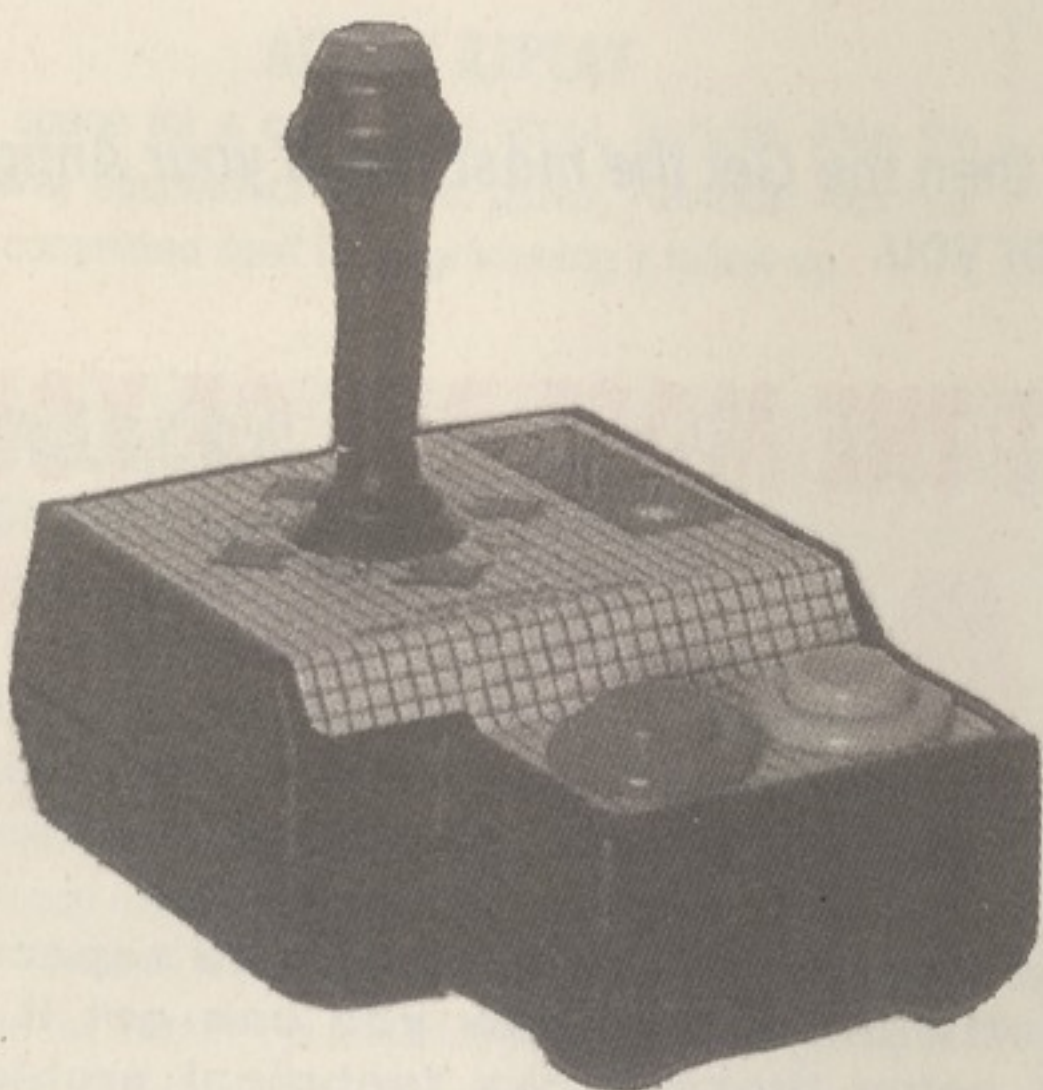
+ £5.00 P&P



**+1 FREE
GAME**

**12 MONTH
GUARANTEE**

DELIVERY WITHIN 28 DAYS



**STAR-
CURSOR**



**the only PROFESSIONAL
home play joystick with a full
replacement**

You'll find this new design, revolutionary joystick will give you maximum results in game play. It is comfortable, easy to use and is guaranteed arcade quality.

The Starcursor Joystick is pre-tested and incorporates all the design features and durability of its coin operated cousins - making it unquestionably the finest of its type.

The Starcursor Joystick is the closest thing to having your own arcade game in your home.

3 YEAR

GUARANTEE

£29.95

+ £2.00 p&p



To order send cheque or postal order made payable to:
SOLID GOLD MARKETING
(Please write name and address on reverse).

SOLID GOLD MARKETING,
Unit 6,
Lomond Trade
Centre,
Lomond Industrial Estate,
Alexandria,
Dumbartonshire,
Scotland, G83 0TL.
Tel: 0389 55973

Please allow 28 days for delivery.
We also accept Access & Visa
Trade enquiries welcome

SOUTHERN P.D.

Amiga P.D. library open 7 days 9am-7pm Tel 0273 517147

A005 Puggs in Space
A009 Predators Megademo. (2 disks)
A013 Kefrens Megademo 8. (2 disks)
A012 Alcatraz Megademo 4 (3 disks)
A015 Star Trek Game 1 (2 disks 1 Meg)
A019 Powerlords Powermix 1 (1 Meg)
A023 Vangelis Demo (1 Meg)
A024 Digital Concert 2
A038 Digital Concert 3
A039 Digital Concert 4
A078 Budbrain Megademo (2 disks)
A080 RSI Megademo (2 disks)
A117 Shadow of the Beast Demo
A119 Turtlemania by Red Devil
A101 Game Music Creator
A093 Ace Demo Disk 2
A089 Ian & Micks Megademo
A090 Link First Megademo
A070 RAF Megademo
A017 Eatmine (boulderdash Game)
A044 Space Blitz (4 space games)

A048 Avenger Megademo
A046 BAD (M Jackson)
A042 Amiga Chart 3
A061 THR Demo
A053 Crusader Bactera
A054 Amiga Music 1
A058 Crusader Audio X
A059 Vision Megademo IV
A082 Rebels Megademo
A083 Space Ace Demo
A081 Amazing Music 1
A112 Madonna: Spanky
A116 Uedit (W/Processor)
A109 Kefrens Jukebox
A100 Yahzee (dice game)
A071 Mig Demo disk 55
A036 D-Mob Music 4
A073 Darkstar Utility 3
A110 Amiga Chart 5
A027 No Limits Demopack
A004 Nasa Pictures

Blank disks 70 pence each or 10 for £6.50

All P.D. disks are £1.25 each + 60 pence P+P
(please note some demos are 2 or more disks)

Please make cheques/postal orders payable to Southern Computers
31 Hanson Road, Newhaven, East Sussex, BN9 9EQ.
Please send a stamp addressed envelope 9x4 for a free catalogue

MADE IN THE U.S.A

"FORMAT ON A HIGH QUALITY PRODUCT AT THE BEST PRICE"

3 1/2" DS/DD

35p/inc VAT

100% CERTIFIED

PRICES PER DISK

	DS/DD	DS/HD
10 - each.....	55p	99p
50 - 200	49p	86p
250 - 400	39p	79p
450 - 1000	35p	73p

UNBRANDED BULK, SONY, JVC OR
3M PACKED 10 OR 50 pcs EA

5.25" FROM

DS/DD 25p each

DS/HD 55p each

INTERNATIONAL BRANDS PKG 10+

COMPLETE LINE OF ACCESSORIES AVAILABLE AT
DISCOUNT PRICES.

Add £2.80 for P&P - All prices include VAT/labels.
To order send cheque/P.O/ or call



PHONE: 081 759 8829

FAX: 081 897 0407

VISA

US COMPUTER SUPPLIES

Room 130/G, Building 521, Cargo
Centre, London Heathrow TW6 3LL

PRODUCTS/PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Two new brilliant
books from the
publishers of
New Computer
Express, Amiga
Format and ST
Format

If you're the proud owner of a Commodore Amiga or Atari ST, then the *Get the most out of your Amiga* and *Get the most out of your ST* books are invaluable tools for you.



THE ONLY WAY TO GET THE MOST OUT OF YOUR AMIGA & ST

In 172 information-packed pages it aims to provide advice on all aspects of the Amiga and ST scene: what software to buy, how you can get it free through the PD libraries, how to solve those tricky technical problems, where you're going wrong with a game you can't beat.

You can get all this for the bargain price of only £9.95. Alternatively, for a mere £4 more you can also have two 880K disks absolutely packed with the most useful utilities and the most entertaining programs, carefully picked to be the essential collection from the PD and elsewhere. Start getting the most out of your Amiga and ST!

BOOK ORDER FORM

- ☐ Yes, I would like to order ----- copy/copies of
GET THE MOST OUT OF YOUR AMIGA at the recommended price £9.95
(Please add £1.45 per copy to cover p&p.)
- ☐ Yes, I would like to order ----- copy/copies of GET THE MOST OUT OF
YOUR AMIGA plus two disks at the recommended price of £13.95.
(Please add £1.45 per copy to cover p&p.)
- ☐ Yes, I would like to order ----- copy/copies of
GET THE MOST OUT OF YOUR ST at the recommended price of £9.95
(Please add £1.45 per copy to cover p&p.)
- ☐ Yes, I would like to order ----- copy/copies of GET THE MOST OUT OF YOUR
ST plus two disks at the recommended price of £13.95.
(Please add £1.45 per copy to cover p&p.)

If paying by cheque, please enclose payment with this card in a sealed envelope addressed to:
Get the Most...Book Offer, FREEPOST, Future Publishing Ltd, The Old Barn, Somerton,
Somerset TA11 7BR. (No stamp is needed if the letter is posted in the UK.) Please allow
up to 28 days for delivery.

Name: (BLOCK CAPITALS PLEASE)

Address:

Postcode:

Telephone:

I enclose a cheque for £

Made payable to Future Publishing Ltd

My credit card number is:

Expiry date:

Signed:

I wish to pay by Access/Visa*
(*please delete as appropriate)

There's something fishy going on here. Domark is still writing conversions of James Bond films, but suddenly Millennium has popped up with its own Bond game. Bond with humour, no less.

This particular 007 isn't so much of an undercover spy as an underwater fish. 007 – or James Pond as he's known to his friends – is more than keen to take on any mission, however dangerous.

The game is divided into a host of levels, each one set in the sea. Some are played deep on the ocean bed while others are close to the shore. At the start of each level you are given a mission objective. This may be to collect keys which release trapped crabs from their basket or to find dynamite and pile it round the legs of an oil platform.

It's an unlikely idea for a game, but with colourful, lively visuals it might just end up being a surprising contender for the Xmas charts – or tumble into a watery grave.

Watch this space for the full review in a couple of weeks' time.



• The infamous 007 takes to the high seas in Millennium's James Bond spoof. Find out if the intrepid Mr Pond ends up in a watery grave.

ACTION REPLAY

Just space for a quick word about *Turrican*. After the runaway success of the first game, Rainbow Arts has now committed itself to programming a follow-up.

Mark Higham's GAMES WEEK



• Manfred Trenz, who wrote the original *Turrican*. Now he's writing a follow-up – not surprising when you consider the heaps of cash it made.

Rather predictably called *Turrican 2*, the new version is provisionally scheduled to appear towards the middle of next year.

Version one was an absorbing and colourful shoot-'em-up so what's going to make it into version two? Nothing original, I'll bet. The plan is to incorporate more of everything – more aliens to blast, more bonuses to collect and more levels to scour. So start saving more of your cash.

The game will be programmed by Manfred Trenz who designed the original concept and coded the C64 version. As before, ST, Amiga, Amstrad CPC and

Spectrum versions are scheduled with the C64 version leading.

AWAKEN YOUR SPIRITS

Last week I went potty over a new game from Millennium planned for release next spring. This seriously mega game is played on a *Populous*-style isometric landscape and the idea is to use your role as an Indian spirit to influence characters in the game.

Currently called *Outlands*, the scenario and name may change in the months leading up to its release. In the meantime, this is the first screenshot to be released so sit and drool. ■



• It's new. It's original. It's radical. *Outlands* could be as big as *Populous*.

SIMULCRA

MICROSTYLE • £24.99

ST • Amiga • PC

Fed up of straightforward scrolling shoot-'em-ups? Bored by the traditional end-of-level guardians? Seeking something with more originality? *Simulcra* could be just what you need.

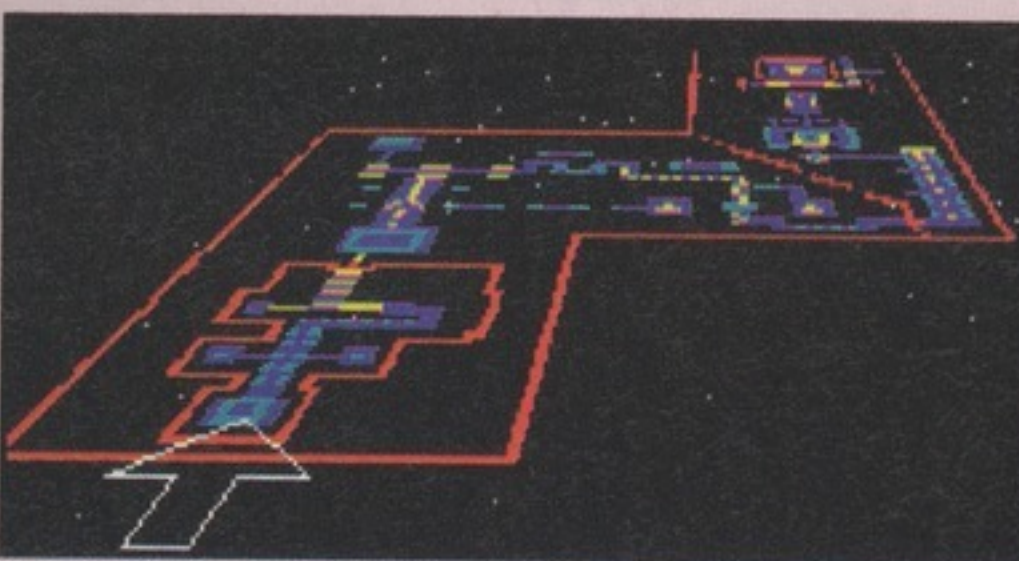
Simulcra looks vastly different from any shoot-'em-up on the market. For a start, it's arranged as a series of scenarios. Within each scenario you have five matrices to complete; each a complete level.

At the start of a game the matrix pops up to show you the game map and indicate your location and direction. The idea is to work your way from one end of the matrix to the other. The matrix is constructed as a series of panels, all linked together to provide a network of possible routes. These essentially "float" in outer space.

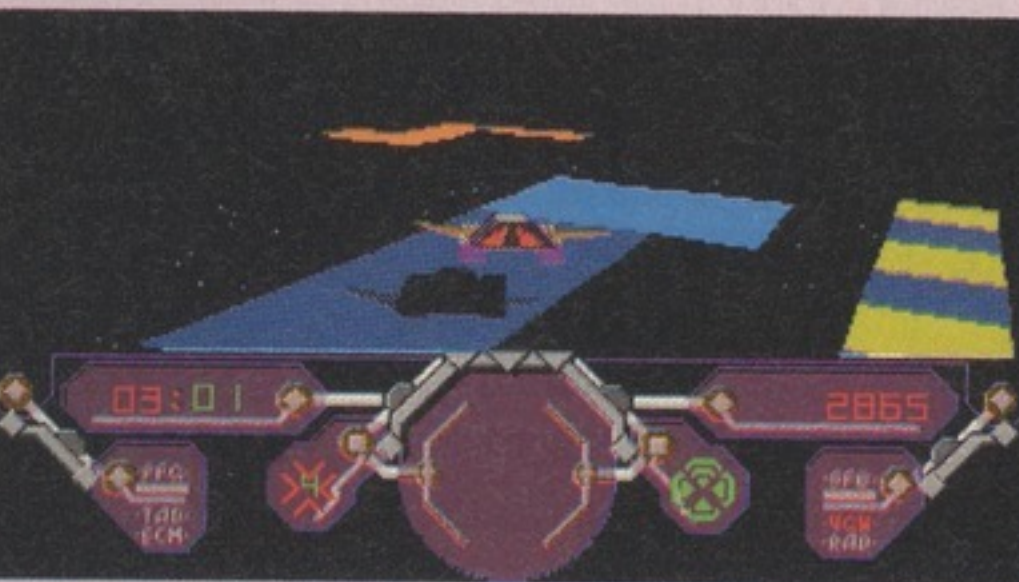
Unfortunately, this isn't a simple maze game. Instead of hunting out a winding route to the end, part of the problem involves obliterating red energy barriers which restrict your access to areas of the level. You can't just toss a well-timed grenade at the solid red wall, instead you need to locate the energy generator found somewhere around the barrier and bomb it.

To move through the game you have two methods of travel. You can either steer over the maze of linked panels – by far the easiest method – or you can fly through the sky.

Flying is faster but it's very easy to lose control and plunge into an energy barrier. You're also under attack



• You can call up the game map at any time during play to work out how you're doing. The red lines indicate energy barriers which still have to be broken down. Locate the energy generators and blast them to proceed through.



• Extend the wings and you glide over short gaps. Flying is certainly the quickest way to reach the energy barrier but it's also the most dangerous. In flight, you're susceptible to attack from other flying craft. You also need to watch out that you don't fly straight into the energy barrier.

from more flying craft and you can only fly if you're equipped with wings. These are destroyed when you crash so they won't always be at hand. Fortunately, you can still glide over small gaps even without wings attached.

Of course this wouldn't be a decent game if there weren't a few bad guys traipsing round the universe. 3D flying craft, legions of enemy installations and stationary obstacles all present you with nightmarish problems. You can blast most of them, though it's tricky lining up to aim correctly. When you fire at some of the enemies, they drop bonus pods which you can pick up to gain extra power. Some reward you with more points, others give you new lives and still others improve the performance of your craft – perhaps by giving you radar to scan for enemies or new wings.

The visuals prevent this from being another boring and traditional shoot-'em-up. All your opponents, bonus pods, enemy installations and hosts of stationary obstacles are represented as 3D plains, effectively shaded. The actual matrix itself is shown as connecting coloured tracks which extend into the horizon to give a real impression of depth.

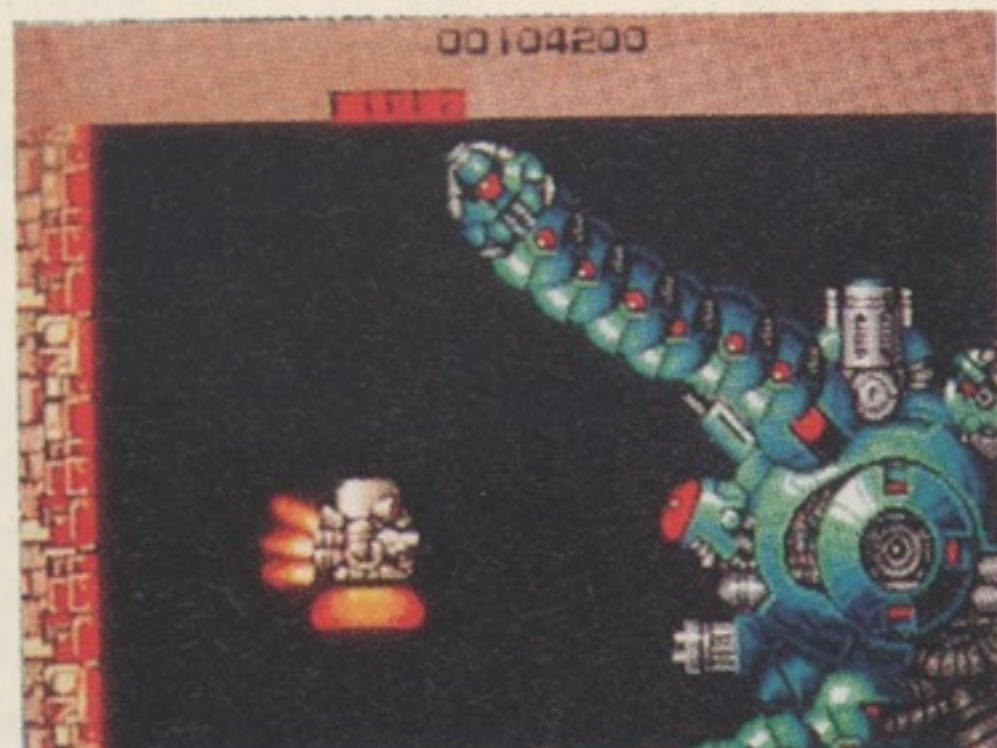
Simulcra adds new life to a tired and hackneyed game genre. If you're looking for furious, high-speed joystick action, heaps of bonuses and fearsome enemies all rolled into an innovative new shoot-'em-up, *Simulcra* is it.

THIS WEEK'S GAME REVIEW

THE CONSOLE ZONE

Your weekly guide to console gaming with Richard Frederick.

SEGA MEGADRIVE



• Atomic Robot Kid: flying dustbins rule.

Treco, the 'total leisure planner', has just released the Megadrive version of *Atomic Robot Kid* in Japan. This multi-scrolling coin-op conversion features one of the most unusual central characters ever seen in an arcade game – a sort of flying dustbin armed with a multitude of impressive weaponry. *Atomic Robo-Kid* is standard shoot-'em-up, far enlivened with some attractive graphics and easy-to-get-into gameplay. It costs 6800 yen (£27).

PLAYING TIP

Play any *Golden Axe* level by selecting arcade mode, hold down [Lower Left] to spin the characters around on the character selection screen. Simultaneously hold [Button B] and [Start] to make the number appear in the top left corner of the screen. Use [Up] and [Down] to alter the starting level.

NEC PC ENGINE

PLAYING TIP

Enter a secret mode in *Ordyn* by holding down [Run] and pressing [Select] six times on the title screen. Release. Simultaneously hold [Button], [Button] and [Upper Left]. This secret mode lets you select any round, number of ships, turn on autofire, and run a second test.

HI-SCORERS

So you think you're good eh? Send us your best scores on your favourite games for the Megadrive, Gameboy, Sega Master, NES, PC Engine, Lynx and Neo-Geo.

GAMEBOY

<i>Super Mario Land</i>	331,860	Alex Taylor
<i>Tetris</i>	115,998	M O'Brien

MEGADRIVE

<i>DJ Boy</i>	3,531,300	Alex Taylor
<i>ESWAT</i>	277,900	Alex Taylor
<i>Final Blow</i>	2,525,040	Alex Taylor
<i>Forgotten Worlds</i>	653,900	Alex Taylor
<i>Ghoul's 'n' Ghosts</i>	102,400	Alex Taylor
<i>Golden Axe</i>	414.5	Alex Taylor
<i>Super Shinobi</i>	1,968,500	Alex Taylor

NINTENDO GAMEBOY

Boxxle is "the ultimate brain teaser for the Gameboy system", says its creator, FCI. "Your job is to move boxes into their proper spaces, to straighten up the warehouse and get to the next screen, and the next, and the next! The challenges keep coming – over 100 screens in all. It *Boxxles* the mind! Plus, you can pick your puzzle, or use the edit function to create your own screen." *Boxxle* features 108 screens, three edit screens and password memory.

FCI (Fijisankei Communications International) is the video game arm of a giant Japanese company that also includes Pony Canyon Inc (a leading Japanese producer of video cassettes, with a 25 per

cent share of Virgin Records, also representing A&M Records, Disney, RCA Columbia Video, MGM/UA Video and Vestron in Japan), Fuji TV network (Japan's largest commercial network reaching over 90 per cent of Japan's population of 120 million) and Nippon Broadcasting Co (Japan's largest radio network). There ends our Japanese business study!

PLAYING TIP

Find the secret room in *Castlevania* by climbing up the fifth rope in stage one. You move through the bricks and out of the screen into a bonus room filled with four goodies.

SEGA MASTER SYSTEM



• Xenon II: coming soon on the Sega.

Imageworks is converting its popular 16-bit game *Xenon II* onto the Sega Master system. "Xenon II is the shoot-'em-up to end all shoot-'em-ups," says Imageworks. "The plot behind *Xenon II – Megablast* sees a return to the sorry state of affairs that existed at the start of *Xenon I*, with the Xenites poised to launch a major offensive on earth.

"This time they have used the services of a warped but very creative scientist, who has found a way to travel back through time. Using this device the Xenites have planted a series of time-bombs in each major area which, when detonated, will trigger a natural disaster, providing the opportunity for the Xenites to move in and take control. By corrupting the past they control the future, and will have assured victory in the latest battle. For the lure of cash you decide to help the Xenites in their evil plan. Your task is to travel through time, detonating the bombs, while blasting the hell out of anything that gets in your way."

Imageworks confirms, "Now Sega owners can experience the breathtaking graphics, hot soundtrack and fast action that makes *Xenon II* the world's best shoot-'em-up. Coming for the Sega Mega system next year".

PLAYING TIP

For as many *Black Belt* lives as you like, choose a one-player game and press [Reset] just before the game starts.

WANTED DEAD OR ALIVE

We need your playing tips, cheats and maps for any video games available for the Megadrive, Gameboy, Sega Master, NES PC Engine, Lynx and Neo-Geo. Send everything to the usual address.

NINTENDO ENTERTAINMENT SYSTEM

Taito Software Inc is about to release the NES version of *Indiana Jones and the Last Crusade*. "The *Last Crusade* was the blockbuster movie for 1989 (grossing over \$440 million worldwide)," says Taito. "Our video game, which accurately follows the film's storyline, was developed for play on the Nintendo system under an exclusive licensing agreement with Lucasfilm Ltd."

"*Indiana Jones and the Last Crusade* is the ultimate in high-adventure video games," according to Alan Fetzer, president of Taito. "Using a memory configuration of two megabits, plus 64K SRAM, plus a MMC1 memory chip, making it one of the most advanced NES games available, it pushes the Nintendo Entertainment System to its very limit, and allowing us to create greater video game detail than ever before. This highly expanded memory impacts the graphics capability by providing *The Last Crusade* with life-like animation throughout."

Indiana Jones and the Last Crusade costs \$49.95 (about £30) on the NES. It is the first product completely designed and programmed by Taito's US research and development centre in Seattle.

PLAYING TIP

Find a bonus stage in *Kung Fu Heroes* by walking anti-clockwise around the screen, touching each corner.

ATARI LYNX

PLAYING TIP

The next seven *Chip's Challenge* passcodes:

11: DCKS, 12: BTDY, 13: COZQ, 14: SKKK,
15: AJMG, 16: HMJL, 17: KGFP

AMIGA SUPERMARKET

SUPERSAVERS

AMIGA SCREEN GEMS PACK

- A500 WITH 1.3 WORKBENCH
- 512K RAM & BUILT-IN 3.5" DISK DRIVE
- MOUSE + ALL MANUALS & CABLES
- CONNECTS TO ANY TV - MODULATOR INCLUDED. NOTHING ELSE NEEDED - JUST PLUG IN & SWITCH ON.

- PLUS** FREE SOFTWARE:-
- BACK TO THE FUTURE II
- DAYS OF THUNDER
- SHADOW OF THE BEAST II
- KNIGHTBREED
- DELUXE PAINT II
- + **FREE WEEKEND HOTEL ROOMS FOR 2***
- + **FREE INTRODUCTORY VIDEO WORTH £14.99**

ONLY £369.99 POST FREE
ACCESSORIES PACK WORTH £30+ ONLY £19.99 WHEN PURCHASED WITH AN AMIGA. COMPRISES:- 10 SONY DISKS, MICROSWITCH JOYSTICK, MOUSE MAT & DUST COVER. * Please ask for full details.

AMIGA A500 SCREEN GEMS + PHILIPS CM8833 MONITOR

Includes Complete Screen Gems pack as above.

Monitor spec.

- 14" SCREEN
- MEDIUM RESOLUTION
- OVER 4096 COLOURS
- RGB & VIDEO INPUTS
- TWIN STEREO SPEAKERS
- STEREO HEADPHONE SOCKET
- GREEN SCREEN SWITCH
- CONNECTING LEAD

ONLY £599.99 POST FREE

A500 1/2 meg UPGRADES NOW ONLY £34.99

- 1/2 meg RAM CARD - ALL CHIPS SOCKETED.
- ON / OFF SWITCH
- LOW POWER RAM CHIPS
- FULLY TESTED
- EASY TO FIT

WITH CLOCK & BATTERY ONLY £39.99

* **AN INCREDIBLE £10.00 CHEAPER IF BOUGHT WITH AN AMIGA ***

3.5" EXTERNAL DRIVES NOW ONLY £59.99

- 880K FORMATTED, 1 MEG UNFORMATTED
- THROUGH PORT
- ON / OFF SWITCH
- LOW POWER CONSUMPTION
- COMPACT METAL CASE
- VERY QUIET, VERY RELIABLE

51/4" EXTERNAL DRIVES ONLY £99.99

1meg of RAM FREE !
COMMODORE A590 HARD DRIVE + 1MEG RAM FITTED
ONLY £399.99
A590 + 2MEG ONLY £439.99

1 Meg A500

SCREEN GEMS PACK

WITH 1meg RAM fitted.

ONLY £394.99

1 Meg A500

SCREEN GEMS PACK

WITH 1meg RAM + 3.5"

EXTERNAL DRIVE

ONLY £449.99

FREE VIDEO !

Our specially produced & very helpful "INTRODUCTION TO THE AMIGA A500" video worth £14.99 comes free with any Amiga pack.

It covers in detail, & step by step, *all the first time buyer needs to know* to get their A500 up & running, as well as other essential operations such as backing up workbench, as well as how to connect & use external drives, & ram upgrades etc. Available separately for £14.99 + 75p postage. VHS format only.

FREE MIDI INTERFACE

WITH MUSIC X & MUSIC X Jnr

MUSIC X v1.1 (new version) + FREE MIDI 2 INTERFACE - **ONLY £129.95**

MUSIC X JUNIOR + FREE MIDI 2 INTERFACE - **ONLY £79.95**

Midi leads extra - 1m long £1.99, 2m long £2.99, 3m long £3.99, 5m long £5.99

Our MIDI 2 Midi interfaces feature Midi in, Midi Out, Midi Thru sockets + 2 separately switchable out or thru sockets. (Rrp £34.99) As supplied to Commodore - thousands sold to date.

SILLY PRICES!

1/2 meg RAM CARD + 3.5" 1meg EXTERNAL DISK DRIVE
ONLY £84.99

1/2 meg RAM CARD with clock/battery + 3.5" 1meg EXTERNAL DISK DRIVE
ONLY £89.99

NOW YOU CAN RUN PC SOFTWARE ON YOUR A500.

KCS PC/XT BOARD for A500 Fits in 1/2meg ram card slot, gives Amiga 1meg ram & battery backed clock. Most PC software runs faster than on many PC/XTs.

IMPRESSIVE & ONLY £319.99

FREE FANTAVISION SOFTWARE WORTH £18.99

THE NORTH'S COMPUTER DISCOUNT CENTRE

CALLERS WELCOME.

OPEN 8am - 7pm Mon - fri. 8- 4pm Sat

THE FABULOUS NEW STAR PRINTERS

PRICE INCLUDES VAT, CABLE & DELIVERY
LC200 7 COLOUR 9 PIN ...£249.99

This new 9 pin 7 colour printer features 180cps draft speed & 45cps NLQ speed. 4 fonts + italics, paper park, friction & top & bottom tractor feeds, A4 landscape (sideways) facility & front panel dip switch control. It has a 16k buffer.

LC24-200 24PIN MONO....£294.99

LC24-200 24PINCOLOUR..£339.99

These new 24 pin printers feature 200cps draft speed & 65cps NLQ speed. 5 fonts + italics, paper park, friction & top & bottom tractor feeds, A4 landscape (sideways) facility & front panel dip switch control. The colour version has a 30k buffer, the mono one, a 7k buffer.

4MEG RAM CARDS

LOW COST, INTERNAL FITTING

This 4meg A500 memory expansion system is compatible with both old & new Agnus chips, & workbench 1.2 & 1.3. Ram can be configured as fast ram & chip ram. Fits into 1/2 meg slot, but Gary chip adaptor requires internal fitting which will invalidate your warranty. Features battery backed clock, fully socketed - expand in 512k steps using standard 256*4 D rams. No soldering required. Comprehensive instruction book & utility disk included.

UNPOPULATED 4MEG CARD ..£99.99

WITH 1MEG£139.99

WITH 2MEG£179.99

WITH 3 MEG£214.99

WITH 4 MEG£249.99

NO HIDDEN EXTRAS - ALL PRICES INCLUDE VAT & P&P

PRINTERS & MONITORS. Prices include free cable.

PHILIPS cm8833 STEREO	£239.99
COMMODORE 1084SD	£249.99
STAR LC10	£155.99
STAR LC10 COLOUR	£199.99
STAR LC24-10.....	£239.99
CITIZEN SWIFT 24 COLOUR.....	£339.99
CITIZEN 120D	£139.99
COMMODORE MPS1230	£147.99

OTHER PERIPHERALS

DIGIVIEW GOLD V4	£119.99
VIDI + VIDICHROME	£109.99
MARCONI TRACKERBALL	£54.99
NAKSHA MOUSE.....	£29.99
MINIAMP 4 STEREO SYSTEM	£44.99
STEEL MONITOR STAND	£24.99
MONITOR STAND WITH SHELF. £32.99	
TWO WAY MONITOR SWITCH ...	£15.99
STEREO SAMPLER MK II	£39.99
XCOPY PROFESSIONAL INCLUDING CYCONE ADAPTOR new version	£37.99

PLEASE ASK FOR FREE AMIGA SUPERMARKET CATALOGUE.

HOW TO ORDER.

BY PHONE ON ACCESS OR VISA
BY MAIL - SEND CHEQUE OR PO MADE PAYABLE TO TRILOGIC.
PROMPT DESPATCH. C/CARDS NOT CHARGED UNTIL GOODS DESPATCHED.
NEXT DAY DELIVERY £6.00 EXTRA (UK MAINLAND, excluding SCOTTISH HIGHLANDS)
(Cheques must clear before goods despatched) PRICES CORRECT AT TIME OF GOING TO PRESS. E&OE.

SALES HOTLINE - 0274 - 691115

ENQUIRIES - 0274 - 678062 . FAX - 0274 - 600150

TRILOGIC, DEPT CE, UNIT 1, 253 NEW WORKS ROAD, BRADFORD, BD12 0QP

Established 1984

IDEAS IN ACTION

Glasgow, European city of culture 1990, played host to the world's first International Robot Olympics in September. Our roving reporter, Stuart Low, took a look at what it had on offer.

This two-day event was described as "fun with a serious purpose" by the Turing Institute, the organisers and artificial intelligence unit of the University of Strathclyde.

The Olympics was the brainchild of the organiser Dr Peter Mowforth and it attracted over 50 entrants from 12 countries from as far afield as the USA, the USSR, India, Mexico and Japan. Sylvester McCoy – better known as Dr Who – officially opened the show, while the pole-balancing robot 'Trolleyman' lit the Olympic flame. The grand parade of robot athletes single-filed into the University sports hall.

Dr Mowforth told me that the purpose of the Olympics was to attract people's attention and that the event could be considered a platform for the presentation of "first division ideas in action". The largest gathering of robotic technology ever to have taken place, it afforded roboticists from around-the-world a chance to share their knowledge and experience. It also showed the media and the public just what the capabilities of these machines are.

The Olympics had only been made possible through the sponsorship of The Scottish Development Agency, the National Westminster Bank and the IEEE Robotics & Automation Society. Dr Mowforth put that down to "a lack of commitment from the Government and Industry for high level robots". British Government interest mainly lies in using robots in hostile environments. The governments of Japan and the USA however, have been quick to realise the benefits of using robotic technology in the service industries. In the United States robots with on-board sensors patrol prison corridors, while it is possible to hire robots in some Japanese and American hospitals to provide, for example, a meals-on-wheels service.

Dr Mowforth admitted that the use of robotics in British industry, other than for welding or spray painting, was limited. But he did stress that Britain was no different in this respect to the majority of other developed countries, with the exception of the US and Japan, although 'Prometheus', the world's largest robotic project, involving tests using a driverless car on the motorway, is a German initiative.

Dr Mowforth further explained that "the definition of a robot differs greatly from country to country and it is therefore very difficult to establish the extent to which robots are used". He indicated that the robotics industry is experiencing a move away from the development of automated industrial machines and added that "a new generation of robots is now emerging from research laboratories all over the world."

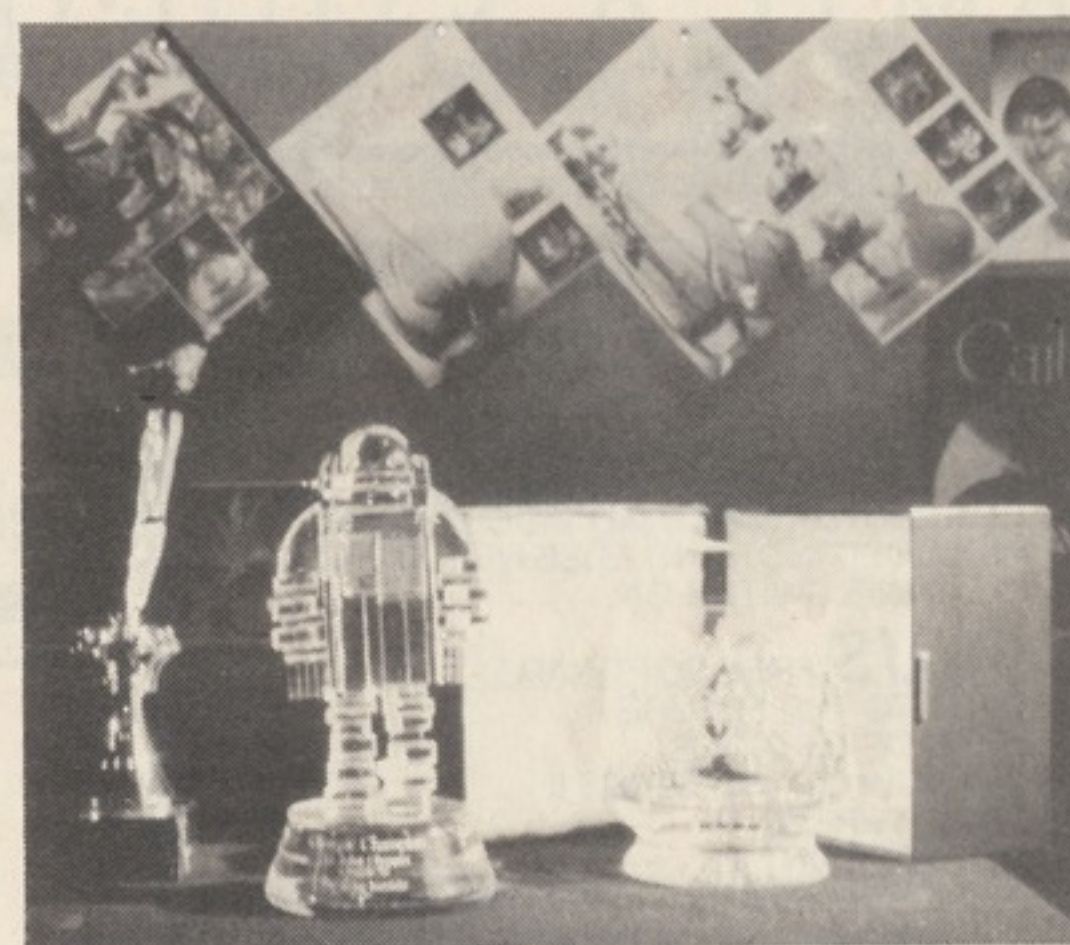
A BIT OF HISTORY

The advance of robotic science has been intermittent. According to Jack Donald, Executive Director of the Turing Institute, the main problem with the robots of the 1970s was their poor perception capabilities. This, and other problems, led to a cut in UK government funding in the mid-1970s. Thus Britain lost not only her lead in the robotics field, but also many of the experts who went overseas to continue with their work.

Interest waned in robotics until 1982, when Japan announced its 5th Generation project. A fresh impetus began, but was once again thwarted as the difficulties associated with robotic research once more became apparent. As the last decade drew to a close, what difficulties remained, began to be resolved. The tools needed to continue with more advanced research beginning to appear.

The Olympics drew together the diversities in contemporary robot design

Even more important was a major shift in scientific thinking, which was to have a profound effect on the future of robotic research. It was realised that robots did not necessarily have to follow the principles of humanoid design, nor did they have to possess wholly human functions. Once this was appreciated, interest revived and several projects were set up to investigate how robots could best be constructed and applied to cope with various situations.



• The Olympics special awards (from left) – Young Robotists Award, Champion of Champions Award, Nat West Prize for Technology.

THE CONTESTANTS

This Olympics event drew together the diversities which now exist in contemporary robot design.

Among the entrants were two bi-pedal robots, one from the University of Wales College, Cardiff (UWCC), the other from Paisley College of Technology. A spokesman for UWCC described the bi-ped as "a machine which could venture into places which had principally been designed with man in mind".

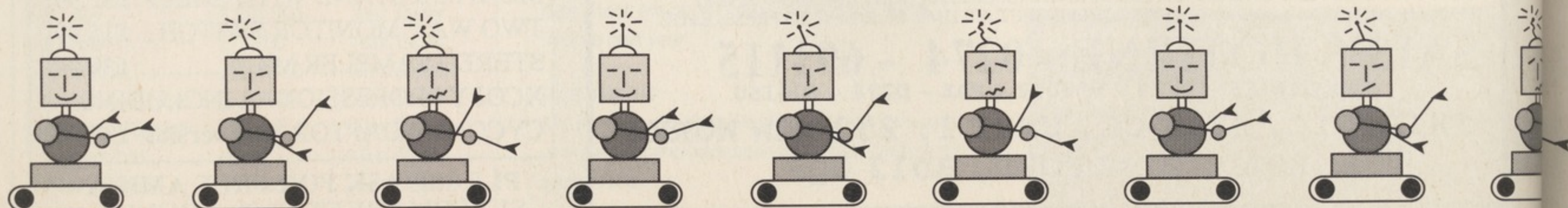
Bi-peds call for great precision in their design in order to achieve balance and require more powerful motors to drive the legs. They also have to be lightweight in construction and are limited to carrying lighter payloads. They do, however, offer greater movement ability and are well suited to coping with rough terrain and difficult obstacles. Thus machines of this type are ideally suited to applications such as fire fighting and surveillance.

Three years into its development, the UWCC Bi-pedal Walking Robot weighs in at around 30Kg. DC Servo motors, connected to off-board amplifiers, power the ankle, knee and hip joints, while on-board sensors measure joint-angles and monitor the state of foot contact with the ground.

The robot did develop a slight technical problem, which impaired its performance in the bi-ped races, but it still managed to finish in first place, securing an Olympic gold.

The University of York has spent 9 months developing its autonomous guided vehicle. RONIE (Remote Observation Navigation Investigation Equipment) is based around a 68000 processor and was programmed using an Atari ST. Ultimately, research of this type is geared towards the driverless car or the pilotless plane. The vision system was rather crude, although it was capable of identifying general shapes.

TAG, an Alnwick-based technological consultancy firm, hopes to develop a robotic industrial floor cleaner and a firefighting/security machine based on a prototype called Hilda II, within the next two years. More immediate plans include the release of an off-the-shelf behavioural programming package for the Atari ST range. TAG hopes this will be available from April 1991. Such a program could present a major breakthrough for many roboticists, as behavioural programs normally have to be written from scratch. Hilda II is also capable of storing several compiled behaviour patterns, dispensing with the need for reprogramming between tasks.



AND THE WINNERS ARE

A few of the entries had been damaged in transit and were unable to compete in their dedicated events, others had been entered as static exhibits.

- DARS (Domestic Automated Robotic System) was entered by Rudy Spencer from London. This independent entry is based on a 286 processor and was programmed using Turbo Pascal. DARS uses a wheelchair motor powered by a 24V battery. Described as a house servant, DARS, once completed, should be capable of a host of applications including voice recognition and intruder detection through its vision system and on-board infra-red and proximity sensors.

- In the wall climbing event Zig-Zag, developed by Arthur Collie at Portsmouth Polytechnic, held on to an early lead as firmly as it held on to the wall. It beat off stiff competition from the Russian RVP1 and RVP2 models, which normally act as inspection vehicles, entered by Professor Valerie Gradetsky from the USSR Academy of Sciences. Professor Gradetsky's RVP's fared better against Portsmouth Polytechnic's Robug II, which put on a dramatic display when it ran out of compressed air half way up the course. Frantically it threw its legs in all directions as it tried to re-attach itself to the wall, before finally falling back on to its support rope.

- 'Attila', a Hexapod model entered by the Massachusetts Institute of Technology, stormed home to take the gold in the four, six and eight-legged race. MIT's entry also scooped the Nat West Prize For Technology which included a reward of £200.

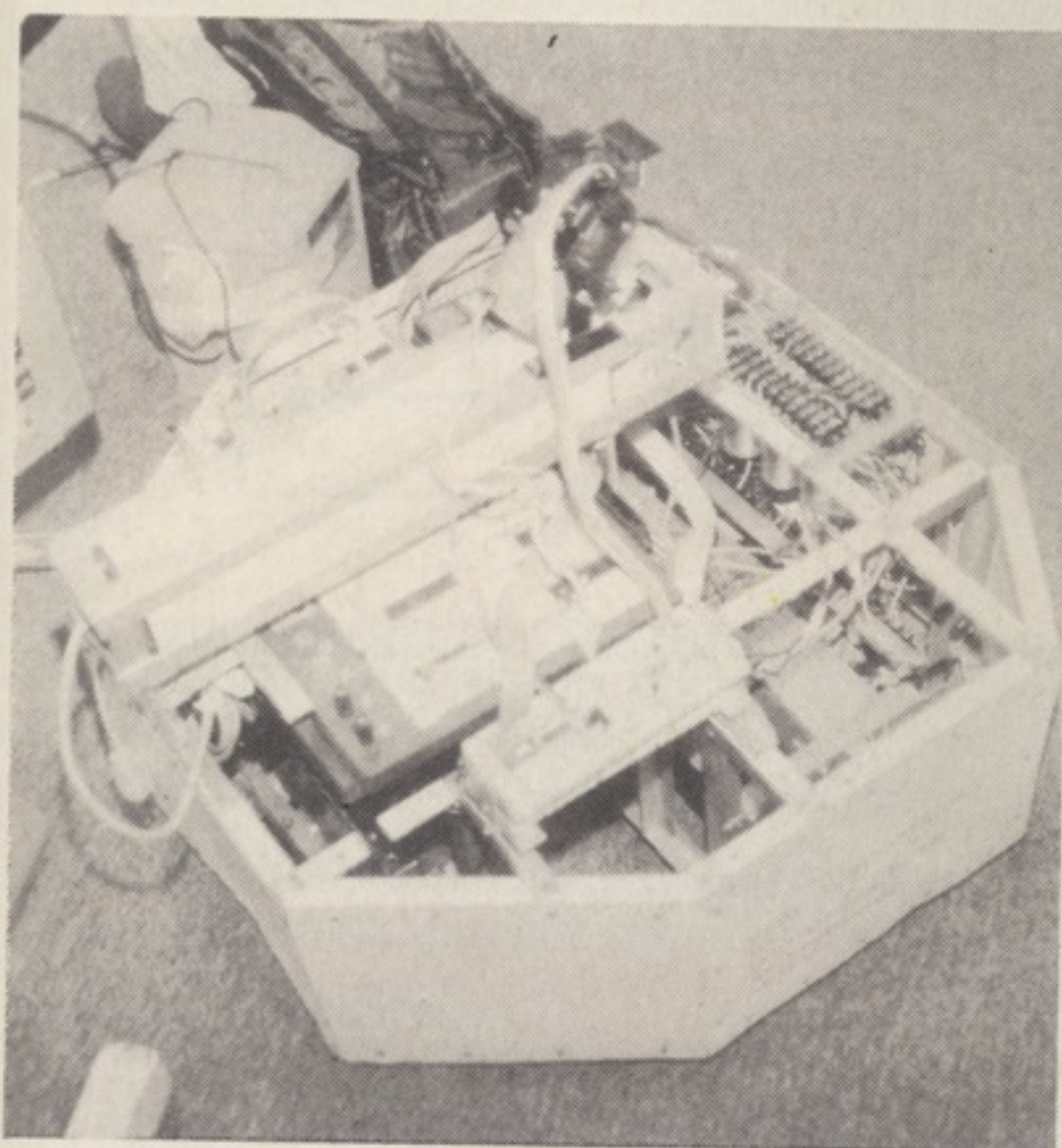
- The Javelin event proved that robotics has still to learn a thing or two from the old masters. Here the gold went to the 'Japanese Archer' from the Museum of Automata in York.

Built around a Block and Cam mechanism the 140-year-old Archer took first place with a throw of 3.3m. East London Polytechnic's robot arm 'Wilberforce' came second (1.5m) while the 'Elephants Trunk' developed by Heriott Watt University was placed third.

- Schoolboy Brian Carr's 'armed robot', entered by St Patricks High, Coatbridge, took the silver medal in the manipulators category.

Brian's robot was completed in under three months Part as part of his fourth-year project. His project also earned him the Young Roboticist Award presented on behalf of the IEEE Robotics and Automation Society.

- Mexico's entry from the Instituto Tecnológico y Des



• The Mexican entry Mark V - capable of 3D image processing.

Estudios Superiores De Monterrey was described as an "experimental remote probe" by its parent Guillermo Haza. Mark V, is capable of 3D image processing using an on-board laser linked to its vision system.

- The Champion of Champions Award, sponsored by Caithness Glass, went to the Japanese entry 'Yamabico'. Fifteen years in development, this research project from the University of Tsukuba also took gold in the wall following and bronze in the obstacle avoidance events. Project parent Shooju Suzuki, who has been involved with the robot for three years, explained that 'Yamabico' was built around three 68000 motorola microprocessors. These control on-board ultrasonic sensors, a laser range-finder and handle the motion program execution.

Shooju is currently developing two further 68000 processors with a view to upgrading the two existing 6809 processors, which at the moment control the voice synthesis unit and the locomotion of the robot.

- The London based Shadow group entered a variety of robots from dedicated vision systems to its ultimate long-term project 'Shadow Walker'. Over two years in development, 'Shadow Walker' is still under construction. Richard Greenhill, who is involved in the 'Walker' project, said that the final version was based on a humanoid design and would be very friendly in appearance. He added: "It should be able to do the housework and the washing-up and is expected to sell for the price of a new car".

- Ashish Panwar from the City Montessori Inter College in Lucknow, India, had entered his school project SIAS. He said that the study of robotics in India was very limited as parts are very difficult to get hold of.

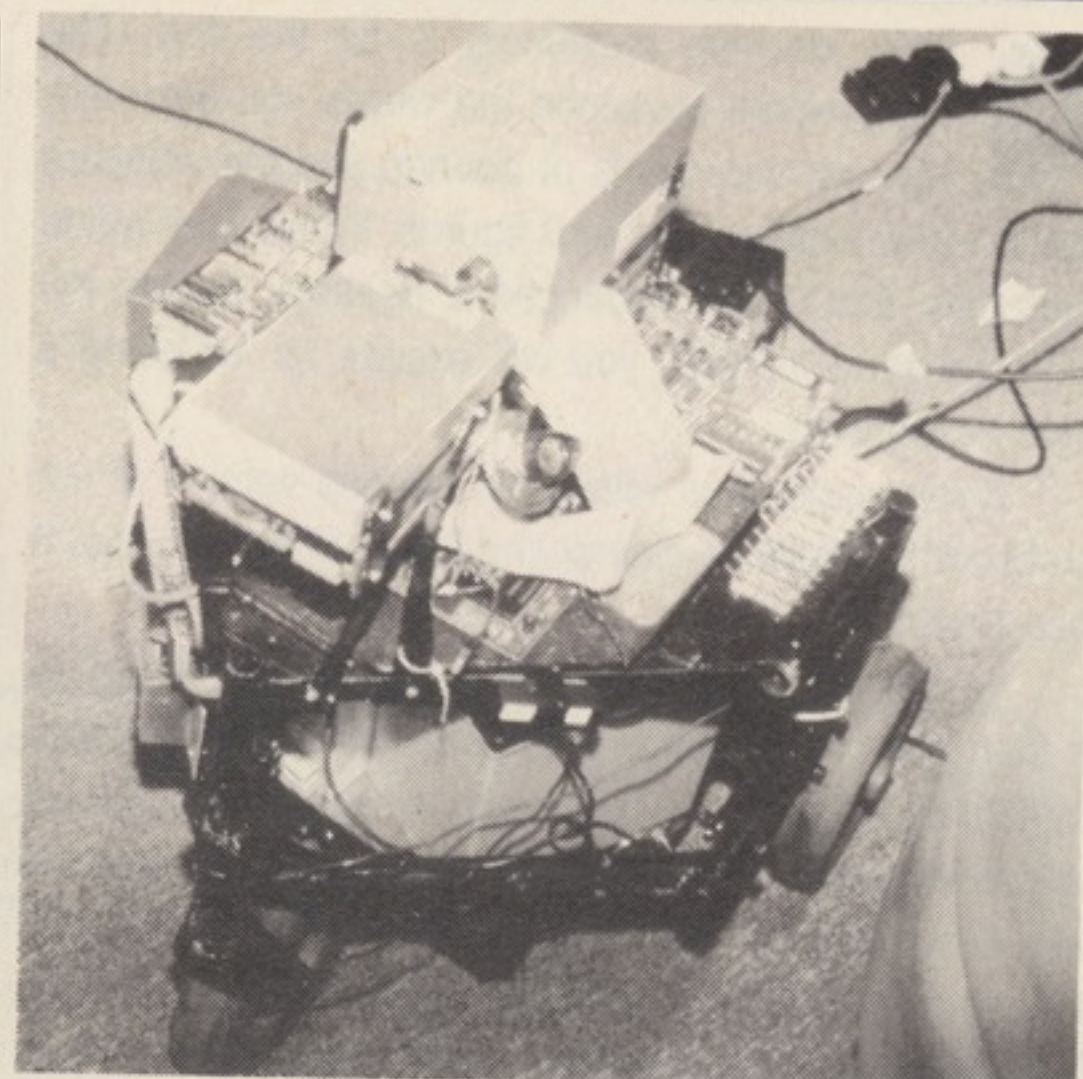
- The Turing Institute entry, Richard I, as well as incorporating a speech synthesis unit which earned it first place in the talking event, acts as a development vehicle for advanced vision and aural systems. As well as tracking abilities, the enhanced vision system is also capable of zooming in on a subject, while Richard I's sophisticated 3D hearing ability put other similar projects in the shade. Not only can it pick up sounds, it can also identify where the sound originated.

SO WHAT OF THE FUTURE?

Robotics, at the cutting edge of technology, is an expensive and difficult business with concrete reward rarely apparent at the genesis of a project. A high profile is therefore vital to keep development funds flowing. So is there a robotics future in this country?

The next large-scale application of robotics envisaged by Dr Mowforth is within the toy industry. If this happens it could lead to the accelerated use of robotics in other areas, such as the disabled, as the initial research costs would have been borne by the toy manufacturers. The large number of disabled visitors who attended the Robot Olympics proved that this type of technology was of considerable interest to the handicapped. For the disabled, robotics is a potentially very liberating technology. As Dr Mowforth put it: "Imagine an intelligent wheelchair which would stop automatically at the top of a flight of stairs for instance, or the benefits vision systems could bring to the blind".

The attitude to robotics differs greatly between Europe and the United States. A very pragmatic approach has been adopted in the European arena where projects attract mainly commercial funding. Many of the research projects undertaken by the Turing



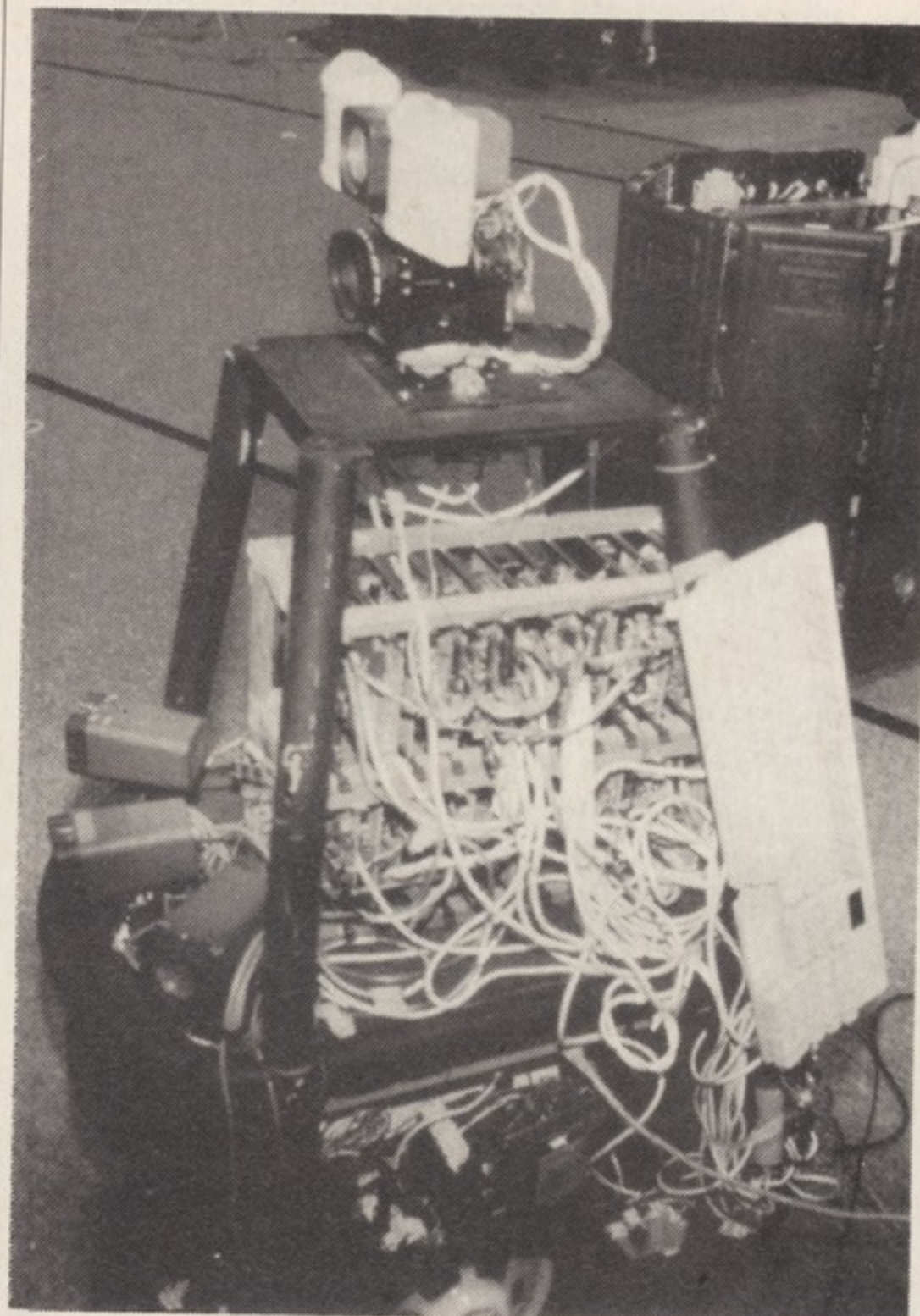
• The final version of 'house servant' DARS will recognise voices and detect intruders.

Institute are funded by Westinghouse, British Aerospace and IBM.

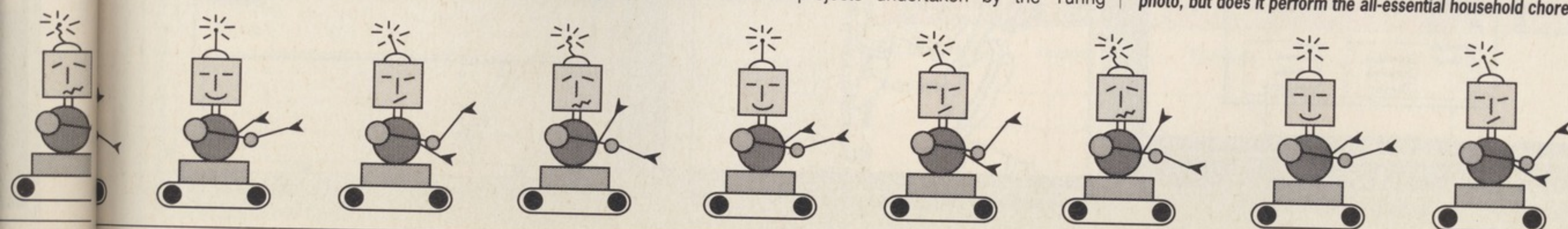
In the US robotics are treated with mistrust. Many early American projects had huge financial backing from the military and millions of pounds were lost when several projects folded.

Dr Mowforth felt that the remaining problems in robotic development lay within the limitations of present computer technology. He said: "At the moment computers are unable to process the volume of sensory information needed to control robots effectively".

The Robot Olympics is set to become a bi-annual event, returning to Glasgow every fourth year. Nagoya, in Japan, has already expressed an interest in hosting the 1992 Olympics. Now that enthusiasm for robotic research is on an upward spiral, with government and commercial funding more readily available, it will be interesting to see how the experimental projects of 1990 evolve in the years to come. ■



• Run off a PC - this neat little number might snap a nice photo, but does it perform the all-essential household chores?



Quality desktop publishing is for the rich. The setup which produced the words you are reading cost thousands of pounds and the software alone would easily make four figures. When Serif made the claim that it had produced a useable, quality PC DTP package for £99, you will excuse us for being a mite incredulous.

Serif supplied us with a pre-release version of the software to check its claims and it has to be said that it has a point.

Serif's DTP, called *PagePlus*, has a quality feel to it that other packages in the same price range cannot match. It has achieved this in two ways. First off, it runs under Windows 3. Windows 3 has already been virtually canonised by the computer press and now is not the time to recap its virtues, but it has an extremely visually smart user interface which makes almost any program look good. It also helps the programmers as windows, menus, screen redrawing and so on are all handled by Windows.

The other way *PagePlus* scores in the feel stakes is by only running on fast machines. You won't persuade it to start up on any machine which doesn't have at least a 286 and a megabyte of memory, but give it a more powerful machine and it can really stretch its legs. Other budget programs struggle along on an 8088 machine and are limited by the constraints of an XT.

FEATURES GALORE

In use *PagePlus* strongly resembles the DTP classic *PageMaker*. There is a pasteboard surrounding the page onto which you can place items and there is a toolbox which floats around the screen from which you can select lines, boxes and text tools.

Items sit directly on the page; there are no frames into which you pour text. Graphics overlay text unless you specifically choose the run-around options.

There are a few additions to the *PageMaker* scheme of things which raise *PagePlus* well above the status of a mere clone. For a start, text can be rotated. Also, when you create temporary groups of objects by Shift-clicking them you can scale the group together.

But most powerful is the Property Panel. This is an interactive dialogue box which lets you alter type's attributes and see the effects in real time. For instance you can highlight some text, select 'size' and use a

Desktop Publishing is for the rich. Or is it? Stuart Anderton takes a look at the latest budget PC package to see if it can match with other software on the scene.

QUALITY ON A BUDGET

scroll bar to increase and decrease the typesize. As you pull the bar up and down the effects of your action are shown instantly on the screen. This is a unique feature to *PagePlus* and one which I would not be surprised to see surfacing in other programs shortly.

PLENTY OF FONTS

Serif promises that *PagePlus* will ship with around 40 scalable fonts, including LaserWriter-compatible versions of the common ones. It supports all Windows-compatible printers – and that's most of them.

It includes stylesheets, but templates and master items are absent. Many features were yet to be implemented in the pre-release version which had a tendency to crash and was a trifle slow. However Serif promises that it will ship with a full library of fonts and clip art and hopes to include Pantone colours – the pre-

release version has RGB and CMYK as colour models.

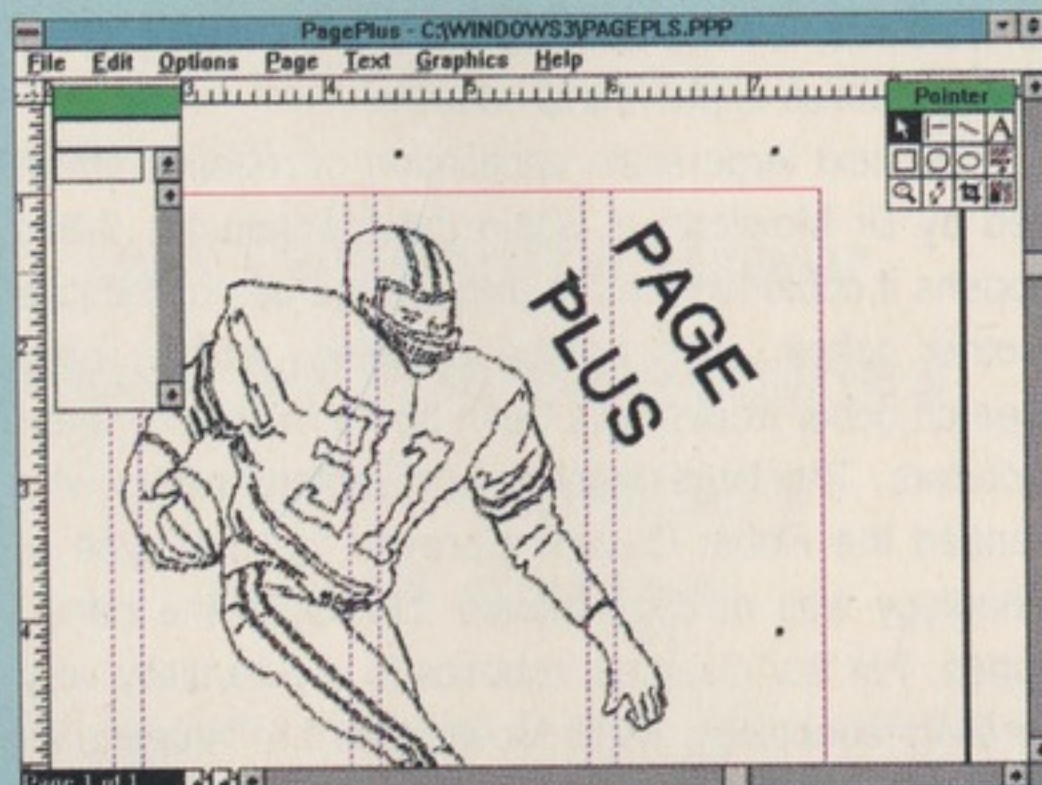
When *PagePlus* is finished it will be ideal for knocking out the odd page flyer or leaflet. It's not a document processor, more of a single page layout tool. At £99 it will almost certainly become a standard Windows add-on alongside *Write* and *Paintbrush*.

According to Aldus Corporation, creator of *PageMaker*, *PagePlus* resembles and operates much like *PageMaker*. It has threatened Serif with "any and all legal remedies" over the user interface of *PagePlus* for the Windows program and has demanded that Serif "refrain from marketing or distributing *PagePlus* until it is non-infringing".

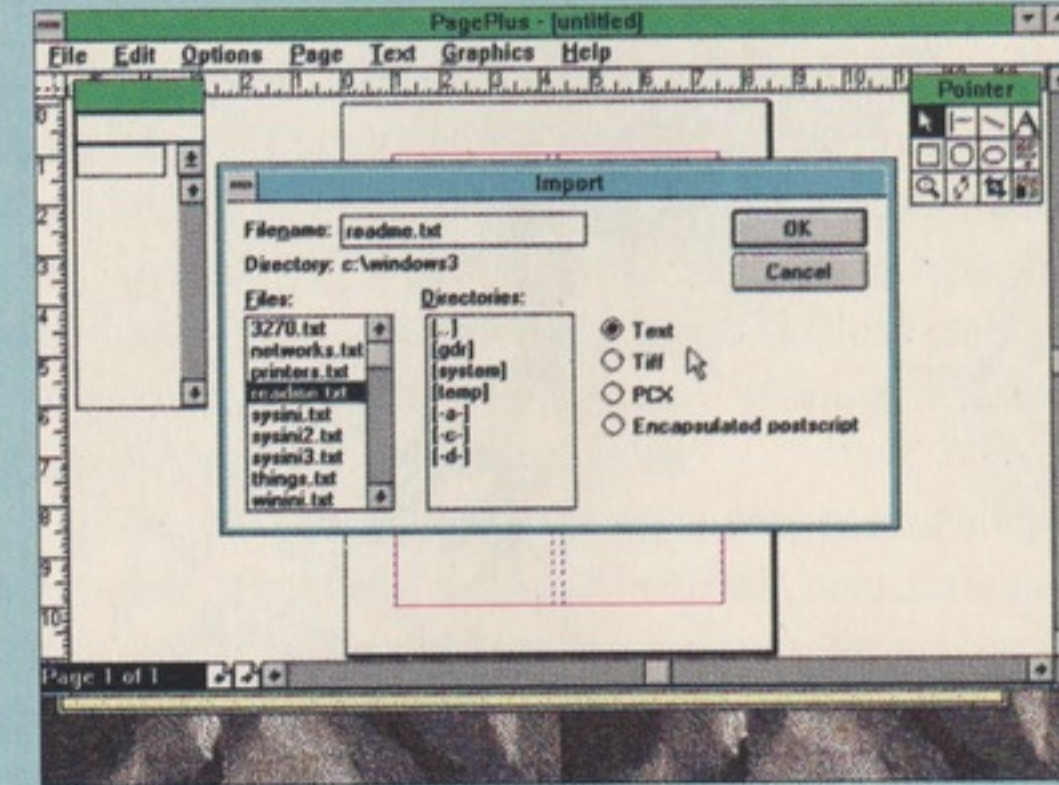
PagePlus will be available from November 26. Contact Serif (Europe) Ltd, PO Box 15 West PDO, Nottingham NG7 2DA, Tel 0602 421502.■



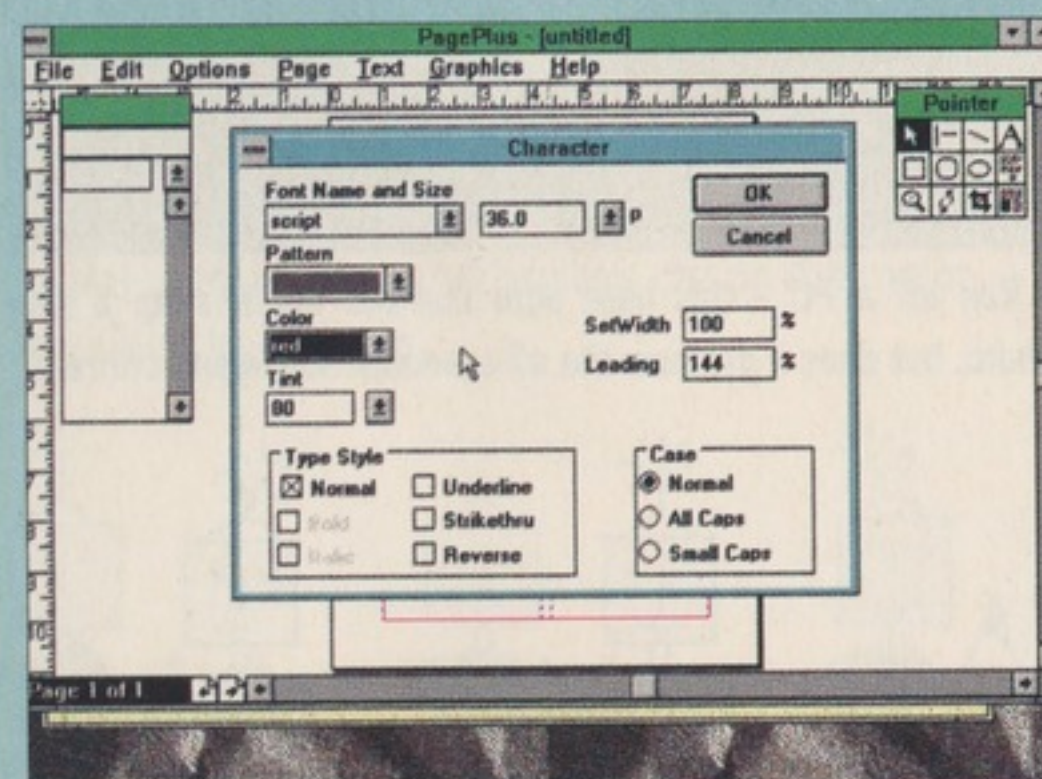
• Multi-task PagePlus with other Windows applications.



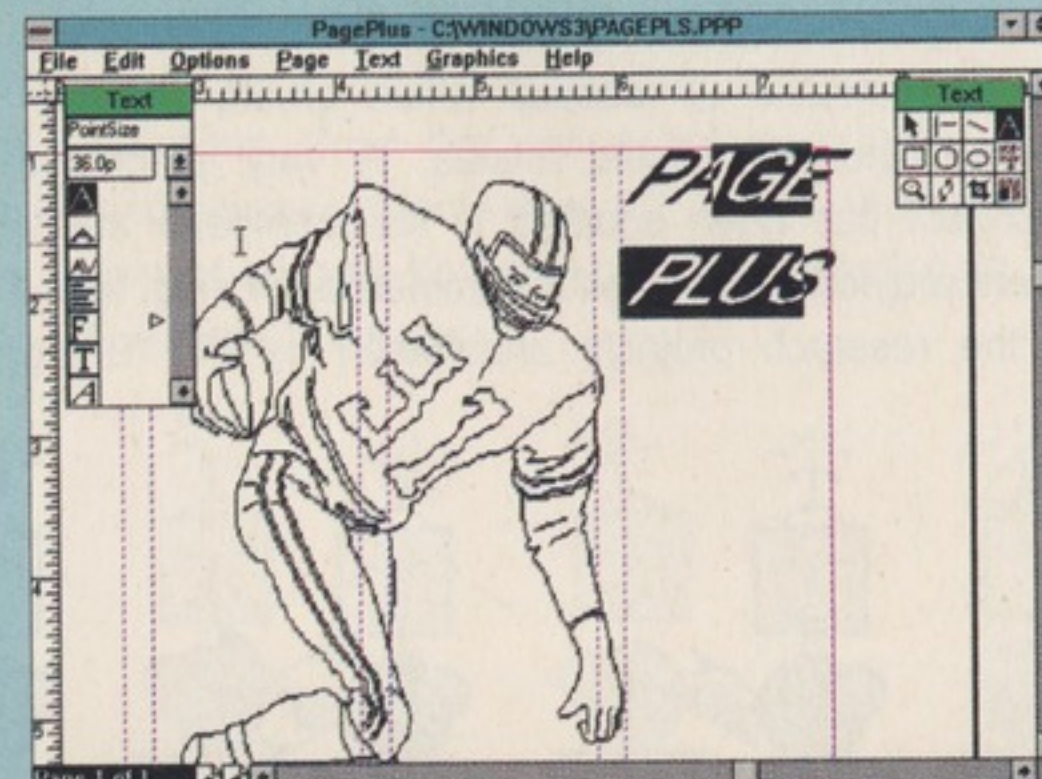
• Text and graphics can be rotated.



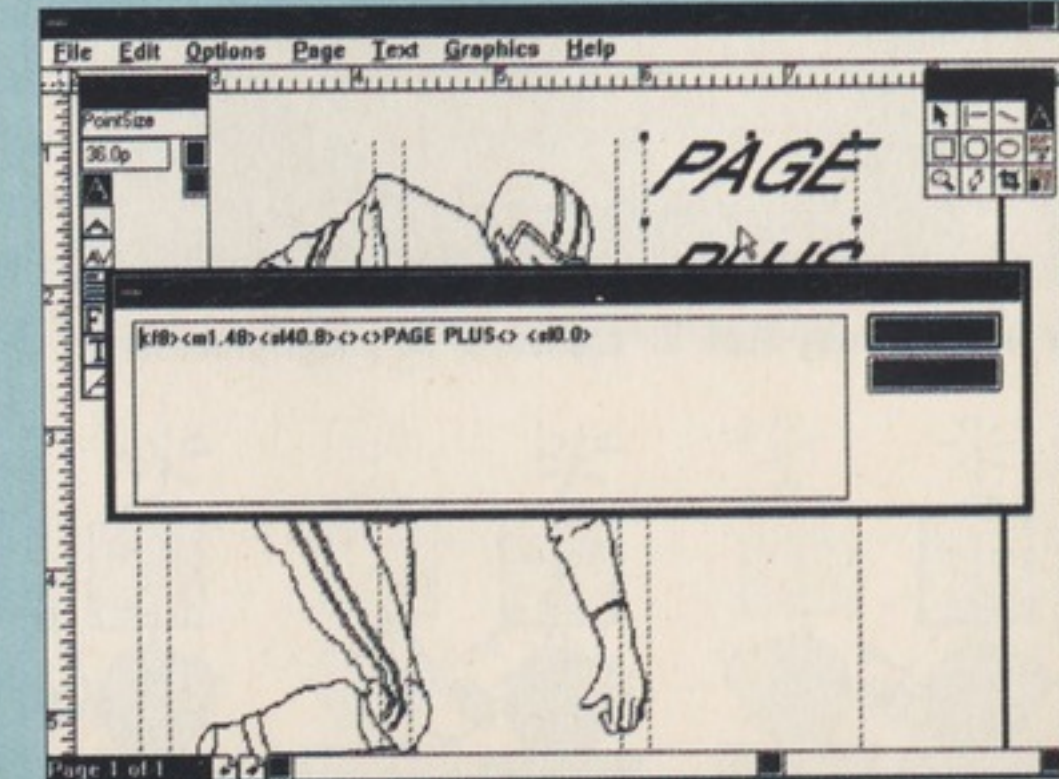
• You can import text and graphics files.



• Full font and style control is available.



• You can directly control font attributes by sliding the bar.



• Text edit window allows you to edit text quickly and directly.

★ POCKET SIZED ★ PC-COMPATIBLE ★ PERSONAL ORGANISER ★



ATARI Portfolio



THE PC IN YOUR POCKET

The new Portfolio from Atari is the world's first pocket-sized electronic organiser that is also a powerful PC compatible computer, with a full QWERTY keyboard and scrolling 80x25 character display.

Portfolio includes everything you would expect from an electronic organiser - an address and telephone book, time manager, diary and sophisticated calculator.

Portfolio also includes several functions that you would not expect - a spreadsheet for your personal budget and expense records, as well as a text processor for typing memos and letters.

And, because Atari's Portfolio is PC compatible, it can communicate with your desktop PC at home, or in the office. You can transfer files from one to the other, to enable you to update your reports and figures with the Portfolio while you are on the move.

FOR ONLY **£199** INC VAT

SPECIFICATION

- ★ **Processor:** Intel 80C88 at 4.9152Mhz.
- ★ **Operating System:** Compatible with MS-DOS 2.11.
- ★ **Internal ROM:** 256K containing BIOS, operating system and applications suite.
- ★ **RAM:** 128K with an internal RAM disk, configurable from 8K. Externally expandable to 640K RAM.
- ★ **Keyboard:** 63 keys, QWERTY, IBM PC BIOS compatible. Buried numeric pad and function keys. Optional key click.
- ★ **Character Set:** Extended IBM ASCII (255 characters).
- ★ **Mass storage:** credit card sized memory cards (32K or 64K or 128K RAM).
- ★ **Display:** Graphics LCD, supertwist technology, MDA compatible, 40 columns x 8 lines, 240 x 64 pixels (with the option to window a full 80 x 25 character display). Keyboard controlled contrast.
- ★ **Peripherals:** 60 pin expansion BUS to take serial and parallel ports and memory expansion units.
- ★ **Size:** 8" x 4" x 1" (200mm x 105mm x 29mm).
- ★ **Weight:** 495 grammes (with batteries).
- ★ **Applications:** calendar and diary, address and phone book, Lotus 1-2-3 compatible spreadsheet, text processor, communications software.

5 BUILT-IN APPLICATIONS! TO GET YOU ORGANISED!

To get you started, Portfolio comes with a suite of five useful functions built-in, all accessible from a simple menu display.

TIME MANAGER

More than just an electronic diary, the Portfolio Time Manager enables you to plan your appointments via a comprehensive calendar and diary. It can even be programmed to sound an audible alarm at specific times to remind you of important appointments.

CALCULATOR

Your Portfolio will be invaluable in the office or at home as a powerful pocket calculator. It has a full range of functions, including factorial,

power and root calculations, all with multi display formats and memories.

ADDRESS BOOK & DIALLER

Portfolio has a complete address book facility that allows you to store hundreds of addresses and phone numbers. And, at the touch of a button, you can retrieve any one of them, or search for a specific grouping, such as "all Italian restaurants". And, when you are ready to book your table, hold your Portfolio to your telephone mouthpiece and use its special built-in tone dialler to dial the number for you.

TEXT PROCESSOR

The Portfolio's built-in text processor program

includes word wrap, line and column count, string search, in fact most of the functions you would find in a word processor. It handles printer and word processor control codes and allows easy transfer of files between Portfolio and your desktop PC.

SPREADSHEET

For real calculating power, Portfolio has a Lotus 1-2-3 compatible spreadsheet built-in. It has 127 columns x 225 rows and reads/writes Lotus V1.0 and V2.01 files, so you can transfer data to and from Lotus 1-2-3 on your desktop PC. The Portfolio's 256K ROM includes MS-DOS and PC BIOS compatible systems software.

COMING SOON!

In addition to the excellent software built-in to the Portfolio Free of Charge (see right), other software and peripheral products, such as the sophisticated Pocket Finance package and serialcentronics interfaces are available. And it doesn't stop there. Many manufacturers have recognised the potential of the Portfolio and have already started to design new peripherals and software. Products currently under development include: Serial interface with built in mini modem, Apple Macintosh interface, business, utility and programming software plus a range of adventure and battle strategy games. For further free details on the Portfolio range, fill in the coupon below and return it to Silica Systems now.



MEMORY CARDS

Portfolio can store and retrieve data and programs from its own RAM, or from small credit card size memory cards, that slot into its built-in card drive. The cards are available in three sizes, 32K, 64K and 128K, so you can carry a library of data in your pocket. The card drive also accepts ROM cards, which can contain commercial or custom software.



POWER SUPPLY

Portfolio is powered by three AA batteries which will run for up to six weeks with normal use, or from the mains using an adaptor. All the peripherals take their power from the Portfolio, so no extra batteries or adaptors are required. A 'battery-low' warning and memory back-up ensure that information is not lost when the batteries are changed.



INTERFACES & PERIPHERALS

Portfolio can communicate with other computers and supports a growing range of peripherals via a built-in 60 pin bus connector. Peripherals available include serial and parallel interfaces and memory expanders (to 640K). You can also add a card drive to your desktop PC, to enable it to read/write to Portfolio's cards.

SILICA SYSTEMS OFFER YOU

FREE OVERNIGHT COURIER DELIVERY: On all hardware orders shipped in the UK.
TECHNICAL SUPPORT HELPLINE: Team of Atari technical experts at your service.
PRICE MATCH: We normally match competitors on a "Same product - Same price" basis.
ESTABLISHED 12 YEARS: Proven track record in professional computer sales.
£13M TURNOVER (with 60 staff): Solid and reliable with maintained growth.
BUSINESS/EDUCATION/GOVERNMENT: Volume discounts available for large orders.
SHOWROOMS: Demonstration and training facilities at our London & Sidcup branches.
THE FULL STOCK RANGE: All of your Atari PC requirements from one supplier.
FREE CATALOGUES: Will be mailed to you with offers and software/peripheral details.
PAYMENT: By cash, cheque and all major credit cards.
CREDIT PAYMENT TERMS: Silica are licensed credit brokers - details on request.

Before you decide when to buy your new Atari Portfolio, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Portfolio, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new Portfolio products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free literature and begin to experience the "Silica Systems Service".

SILICA SYSTEMS

MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111
 Order Lines Open: Mon-Sat 9.00am-6.00pm No Late Night Opening Fax No: 081-308 0608
LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
 Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm Fax No: 071-323 4737
SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
 Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017
BUSINESS/EDUCATION: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888
 Order Lines Open: Mon-Fri 9.00am-6.00pm Closed on Saturdays Fax No: 081-308 0608

To: Silica Systems Ltd, Dept NCE-1090 38 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON PORTFOLIO

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

Tel (Home): Tel (Work):

Company Name:

Which computer(s), if any, do you own?

E&OE - Advertised prices and specifications may change - please return the coupon for the latest information.

HARDWARE

REVIEW

We've been reading a lot in the press recently about the dangers of computer monitors. It appears that electromagnetic radiation and low frequency magnetic pulses can have a deleterious effect on your health – although this is vigorously contested by some leading medical authorities.

There is no doubt, however, that monitors, and in particular colour monitors, are hard on the eyes and can often make you end up with a splitting headache.

Laptops of course don't suffer from these problems. Their screens are nice and easy to look at, and rock solid. This, however, is also their main disadvantage. Because the individual pixels on an LCD screen take their time to fade, you can get ghosting of images; a sort of trail left behind them by a moving object. On LCD screens it also takes a long time for a pixel to spring to life. This means that fast-moving cursors, and particularly mouse pointers, disappear completely.

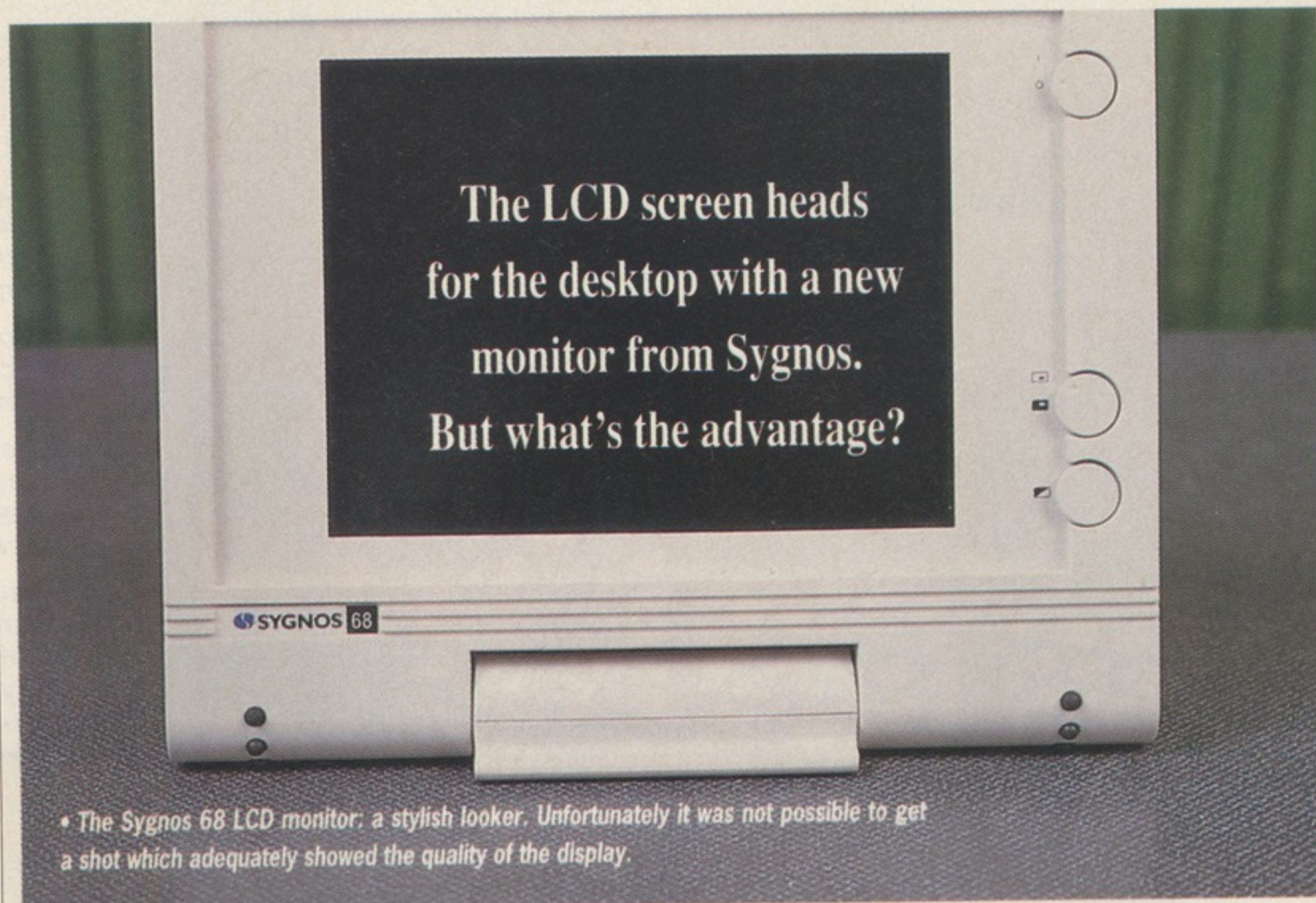
Despite these problems, for long term use with text files an LCD display is extremely pleasant to work on. Realising this, the British firm Sygnos (071-600 1661) has produced an LCD screen for a desktop PC.

The Sygnos 68, as it is called, offers VGA resolution – 640 x 480 – and can display 32 shades of grey at once. In the 265-colour low resolution VGA mode the greys are mapped to the possible 32 in a sensible way. The screen is backlit to provide a paper white display, and since there are no power constraints on a desktop monitor the lighting is strong and even.

To run the LCD screen Sygnos supplies a special VGA card which is also capable of driving a conventional RGB monitor. Installation is as simple as plugging the card into a spare expansion slot (16-bit) and running the supplied utility software. With this software the screen can emulate CGA, EGA and Hercules displays.

The Sygnos is extremely pleasant to use for text-

EASY DOES IT



only applications such as word processing and databases. Although it works with graphical systems such as Windows, the tendency of the mouse pointer to disappear makes it hard to use properly.

The best word to describe the Sygnos is 'restful'. It

is quiet (no fan) and extremely easy on the eye. It also looks smart, and would fit nicely into a stylish office.

The main problem with the Sygnos 68 is its price: £799 is expensive, even with the VGA card. The price will have to drop for it to become a general option. ■

FREE



Get this brilliant new **New Computer Express** magazine binder worth £5.95 absolutely **FREE** when you subscribe for 54 issues at only £34.95

- **Don't miss out** on Britain's biggest selling computer weekly, packed with the latest news and reviews on the Amiga, ST, PC, Archimedes and CPC – plus specialist columns on other machine types.

- **Don't forget** our unique guarantee – if at any time you are not completely satisfied with your subscription we will refund the cost of all the unmailed issues.

- **Don't waste time** – this offer is for a limited period so fill in the coupon below or ring our credit hotline number on 0458 74011

For a six month subscription (26 issues) the cost is £17.95, but does not include the *New Computer Express* binder.

Yes, I would like to subscribe to *New Computer Express*. Please send my free magazine binder when I subscribe for 54 issues at £34.95.

Name _____

Address _____

Postcode _____ Tel _____

I wish to pay by ☐ Access ☐ Visa ☐ Cheque ☐ P.O.

Card Number _____ Expiry Date _____

Please make cheques/p.o. payable to Future Publishing
Send to: **NEW COMPUTER EXPRESS,**
FREEPOST,
SOMERTON, TA11 7BR

THE ATARI ABC

Now, there's a PC-AT compatible that not only solves problems like other AT compatibles, it also solves the one problem that its predecessors have created ... affordability.

Silica Systems are pleased to present the new Atari ABC. The ABC is a 286 AT compatible that runs at over 5 times the performance of the IBM XT. This is achieved by combining the power and speed of a 16-bit 286 processor, with Atari Corp's development experience and engineering capabilities, which use the very latest in design technology. However, the Atari ABC's are available at 'XT prices' and many XT owners will wonder why they paid more, but got less!

The ABC is a reliable, high performance computer, built to exceptionally rigorous standards. It is well designed, to a state of the art specification, maintaining maximum expansion capability for the future. This includes up to 4Mb of RAM and 3 AT expansion slots. Plus, unusually for a PC at this price, the ABC has the ability to install two or three extra drives, with the cabling already inside the CPU.

The ABC has a host of impressive features, all built-in as standard, encouraging simple installation and ease of use. In addition, the ABC's small footprint and quiet operating, mean that you will notice it less on your desk than other PC's. Except, of course, when you begin to take advantage of its AT power.

At its remarkably low price point, the ABC is ideally suited for home, office and educational use and will take full advantage of the vast range of PC compatible software. And, with 12 months FREE on-site maintenance (8 hour response), you can rest assured that your ABC will be fully supported.

The ABC is the latest addition to a comprehensive range of both 286 (8Mhz or 12Mhz) and 386 (16Mhz and 20Mhz) PC's, from the Business Systems Division of Atari Corp. Atari's PC range offers an unsurpassed combination of reliability, compatibility and expandability, with unique features like Atari's 44Mb removable hard disk on their PC4. Return the coupon NOW for further details of the complete range of PC products from Atari's Business Systems Division.

**ABC
TURBO**
AVAILABLE: JUNE 90

To put the ABC even further ahead of the competition, we have introduced a special 'Turbo' version, which includes a super fast RLL hard disk controller to increase the data transfer rate from 150KBytes/s to 800KBytes/s, with a performance index of 4.801. Plus! to provide exceptional graphics with an outstanding colour resolution of up to 1024x768, we have included a Super VGA graphics adaptor and a 14" VGA colour monitor (which also supports 1024x768 resolution), all for an additional price of only £300. Check the ABC Turbo against the competition, at only £1299 (+VAT) with 30Mb hard disk, Super VGA colour graphics capabilities, plus 12 months on-site maintenance, it offers unbeatable value.

LOW PRICE - HIGH SPEC!

CPU+MOTHERBOARD	<ul style="list-style-type: none"> 8Mhz 80286 16-bit CPU Landmark Speed = 10.3Mhz, Norton SI Test = 9.0 Latest NEAT (New Enhanced AT) technology chip set Has user selectable bus, DMA speeds & wait states Programmable to operate at 0 or 1 wait states 640K RAM base memory (expandable) Motherboard expandable to 4Mb RAM memory Real time clock with battery back-up Full 16-bit data line capability Socket for 80287-8 numeric Co-Processor 3 16-bit AT expansion slots (max)
DISK	<ul style="list-style-type: none"> 32Mb RLL hard disk - 150KBytes/s transfer - 60ms access Fast disk controller - 800KBytes/s transfer - Turbo version 1.44Mb built-in 3 1/2" floppy disk drive Space for two 5 1/4" and two 3 1/2" drives (max)
I/O	<ul style="list-style-type: none"> Parallel port built-in (25-pin Centronics) Serial port built-in (9-pin RS-232) Mouse controller port built-in (9-pin serial)
GRAPHICS	<ul style="list-style-type: none"> Super VGA video graphics controller - 512K - Turbo vers Super VGA: 256 colours in 800x600 res - Turbo vers EGA video graphics controller built-in EGA: 16 colours available from a palette of 64 EGA: 256K of dedicated Video RAM built-in MDA, CGA and Hercules graphics controller built-in
PHYSICAL	<ul style="list-style-type: none"> Low noise operation Ergonomic small footprint (38cmx41cmx15cm) Keyboard - 102 key enhanced AT (12 function keys) Keyboard - has 2 position height adjusters
PLUS!	<ul style="list-style-type: none"> Fully OS/2 compatible (requires 4Mb RAM) Supports Industry Standard Networks MS-DOS 3.3 with GW BASIC 3.22 12 Months FREE on-site maintenance included

286 AT

WITH 30Mb HARD DISK & EGA MONITOR - £899

FREE! - ON-SITE MAINTENANCE
FREE! - TECHNICAL SUPPORT HOTLINE
FREE! - TEST/BURN-IN BEFORE DESPATCH
FREE! - OVERNIGHT COURIER DELIVERY

£899
WITH +VAT
**30Mb
HARD
DISK**
AND
**EGA
MONITOR**



**ABC
TURBO
£1299** EXC VAT
 • SVGA COLOUR MONITOR
 • SVGA GRAPHICS CARD - 512K
 • 30Mb HARD DISK DRIVE
 • FAST DISK CONTROLLER

£899 +VAT= £1033.85

ATARI

	3 1/2" FLOPPY DRIVE NO HARD DRIVE	3 1/2" FLOPPY DRIVE + 30Mb HARD DRIVE
NO MONITOR	£599 +VAT = £688.85	£799 +VAT = £918.85
+ EGA MONO	£699 +VAT = £803.85	£899 +VAT = £1033.85
+ EGA COLOUR	£799 +VAT = £918.85	£999 +VAT = £1148.85
ABC TURBO AVAIL: JUNE 90	• 14" SVGA COLOUR MONITOR • SVGA GRAPHICS ADAPTOR • FAST DISK CONTROLLER £1099 +VAT = £1263.85	£1299 +VAT = £1493.85

SILICA SYSTEMS OFFER YOU

ON-SITE MAINTENANCE (8 hour response): Available Free of Charge on all ABC's.
TECHNICAL SUPPORT HELPLINE: Team of Atari technical experts at your service.
100% QUALITY CONTROL: Every ABC is tested/burnt-in before despatch.
FREE OVERNIGHT COURIER DELIVERY: On all hardware orders shipped in the UK.
ESTABLISHED 12 YEARS: Proven track record in professional computer sales.
£13m TURNOVER (with 60 staff): Solid and reliable with maintained growth.
BUSINESS/EDUCATION/GOVERNMENT: Volume discounts available for large orders.
PRICE MATCH: We normally match competitors on a "Same product - Same price" basis.
SHOWROOMS: Demonstration and training facilities at our London & Sidcup branches.
THE FULL STOCK RANGE: All of your Atari PC requirements from one supplier.
FREE CATALOGUES: Will be mailed to you with offers and software/peripheral details.
PAYMENT: Cash / cheque / credit card / credit - we are licensed credit brokers - details on request.

Before you decide when to buy your new Atari ABC, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your ABC, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new ABC products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free literature and begin to experience the "Silica Systems Service".

**SILICA
SYSTEMS**



MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111
 Order Lines Open: Mon-Sat 9.00am-6.00pm No Late Night Opening Fax No: 081-308 0608
LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
 Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm Fax No: 071-323 4737
SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
 Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017
BUSINESS/EDUCATION: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888
 Order Lines Open: Mon-Fri 9.00am-6.00pm Closed on Saturdays Fax No: 081-308 0608

To: Silica Systems Ltd, Dept NCE-1090-28, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON ATARI PC's

Mr/Mrs/Ms: Initials: Surname:
 Address:

 Postcode:
 Tel (Home): Tel (Work):
 Company Name:
 Which computer(s), if any, do you own?

ON THE ROAD TO CHAOS

Traffic jams, multiple car pile-ups and contraflows are integral to motoring in the 1990s. Keith Pomfret climbed into the driver's seat to try out a revolutionary in-car computer that could make traffic queues a thing of the past.

The nice lady from General Logistics handed me the keys to the Trafficmaster-equipped Peugeot in the heart of Soho, she apologised for the lack of a manual or any documentation.

"It's easy enough to use, you'll not have any difficulty with it," she promised before strolling off briskly, leaving me to find my way back to civilisation.

Trafficmaster isn't a navigation system as such, more of a road information terminal.

Trafficmaster will give you dynamic information about delays and problems. The unit beeps an audible warning when an update finds a problem and a single keypress takes you to the offending area.

Initially, Trafficmaster is set up to work around the M25 and the motorway approaches to the capital. Sensors above the outside lane of the motorways bounce an invisible infra-red beam off the traffic passing

below and relay information about traffic control back to a computer in Luton.

The sensors are placed every couple of miles and

Trafficmaster will give you dynamic information about delays and problems

the information is updated constantly. The overall traffic picture seen by the main computer is detailed and up-to-date.

The main computer analyses all of the incoming data and broadcasts any slow downs or hold ups to the in-car units. To the driver, it works like a message pager but with the larger LCD graphic screen, it is able to broadcast pictures as well as alpha-numeric characters.

The adjustable display module sits on the dashboard and the gently backlit LCD screen makes it readable in all lighting conditions. A 'black box' resides elsewhere in the vehicle and between them they relay up-to-date traffic information to help the driver avoid delays.

The M25 and surrounding area currently covered is split into quadrants which correspond to NW, NE, SE and SW. As well as the M25, the main screen display shows all of the motorway approaches from about 30 miles out. The A1 is also included.

When the unit is switched on the driver is shown

THAT'S THE THEORY BUHO

The traffic warden in Soho Square was making gestures with his pen so I scrabbled for the 'on' button, turned the key in the ignition and realised just what a sod London is to drive in.

Mid-afternoon on Friday is hardly the best time to drive in the metropolis and with the restrictions in force on Oxford Street I set off along ... Oxford Street.

The Trafficmaster screen came to life with a screen full of advertising for manufacturer General Logistics which then cleared to reveal a screen offering a choice. The quadrants covering the capital blinked in front of me so I greedily selected all of them.

Two hundred yards into my journey and disaster struck. The friendly policeman saw the verboten Peugeot and

signalled for me to pull over.

I opened the passenger window and he bent down to give me a ticking off and possibly a ticketing off. He spied Trafficmaster on the dashboard and told me he'd heard about it, but never seen it.

As we talked it beeped its message. Standing traffic at the City end of the M4. Intrigued, he radioed in to find out if it was accurate and confirmed we'd got the information as quickly as his colleagues.

I'm sure he didn't believe that it was necessary to test the thing in Oxford Street, but he kindly waved me on. Back through the heavy traffic to Earl's Court and I picked up a brace of motoring journalists who'd promised me their opinions on the product.

Friday teatime and the Hammersmith

Flyover was surprisingly clear.

Trafficmaster beeped a warning that all was not well from the junction before the M25 until the junction after. As the M25 anti-clockwise was the chosen test route, the prognosis looked ominous.

Sure enough, the Trafficmaster's guess at 10 miles per hour proved an accurate average and the stopwatch/odometer ratio gave a mean average of 12 miles per hour through the troubled section.

This was to be the first of many encounters with the concertina effect so common when the quart of traffic tries to fit into the pint pot of road at rush hour.

Normally a motorist would avoid slow moving traffic, but with a true test in mind we put on our masochistic hats and

went looking for chaos.

A few miles later a flag on the screen warned us of stationary traffic at the M25/M23 junction, but this time it was clockwise. We could check it out without delay. As we approached the junction, Trafficmaster flashed up a message saying that an accident had blocked the clockwise carriageway.

Continuing around the M25 (called London's biggest car park by some) the Dartford Toll Tunnel bottleneck brought no new surprises and the display gauged the delay accurately.

Over a welcome cup of coffee at South Mimms Services we discussed the system. We concluded it was simple enough to operate without prior instruction and unintrusive enough to sit

the available areas. These are currently the quadrants around London but as other areas are brought on line, they too will be accessible.

Once the unit is bought and installed a rental is paid for each area covered in the same way as a message pager. If, for example, your regular journey took you from the South West to London, you might only need the section that shows the M4.

A rep or delivery driver might have a varied route and need a more comprehensive set of information areas – area of coverage can be added or subtracted according to needs.

At present, the system works 24 hours a day automatically but three shifts of operators back up the computer with a human touch between 6am and 8pm. The human operator is able to watch the system on the computer and if there is an unexpected hold up they can contact the emergency services and traffic organisations for details.

With a true test in mind we went looking for chaos

These details can be used to supplement the display and a driver can be warned if an accident or some other calamity had totally closed a section of the road.

The display flashes a box on the map at the problem area and the box flashes details of speed and direction of the hold up.

Trafficmaster defaults to 25mph as the speed at which it tells the driver of a problem. This could be reset at any speed, but extensive research has shown General Logistics that this is the optimum speed at



• The screen maps out where traffic problems are and alternative routes to take.

which delays on motorways and arterial roads begin to happen. The speed shown on the in-car display is an average taken over the three previous minutes and the manufacturer claims it is an average speed that one can expect to get through the delay rather than at a constant speed.

The concertina or tidal effect in heavy traffic means that when a vehicle slows down the vehicle behind it slows down slightly. This effect 'ripples' through a moving traffic queue and although the first vehicle may have only slowed by a few miles per hour, a car 40 or more vehicles back may end up stationary as a result.

The tidal flow of traffic in this way blocks and clears a road quickly and the three minute update of Trafficmaster isn't fooled by this effect.

The result is that while the display gives a speed of say 20mph, a driver may be alternately be driving at 45mph and then be in stationary traffic for a few seconds. The average, however, should correspond with the display.

Because the information fed to a vehicle equipped with Trafficmaster is at most 180 seconds old, it is claimed to be the most up-to-date travel information service available for motorists.

Also available with Trafficmaster is a full message paging service. For an additional rental, the system can be used in the same way as an alpha-numeric pager.

FACTS ON TRAFFICMASTER

General Logistics
Luton Airport, Luton, Bedfordshire LU2 9LU
Phone 0582 484414

PRICES

Trafficmaster	
Hardware (including fitting kit)	£295
Installation	£65
Connection charge	£30
Airtime	£17.50 per month

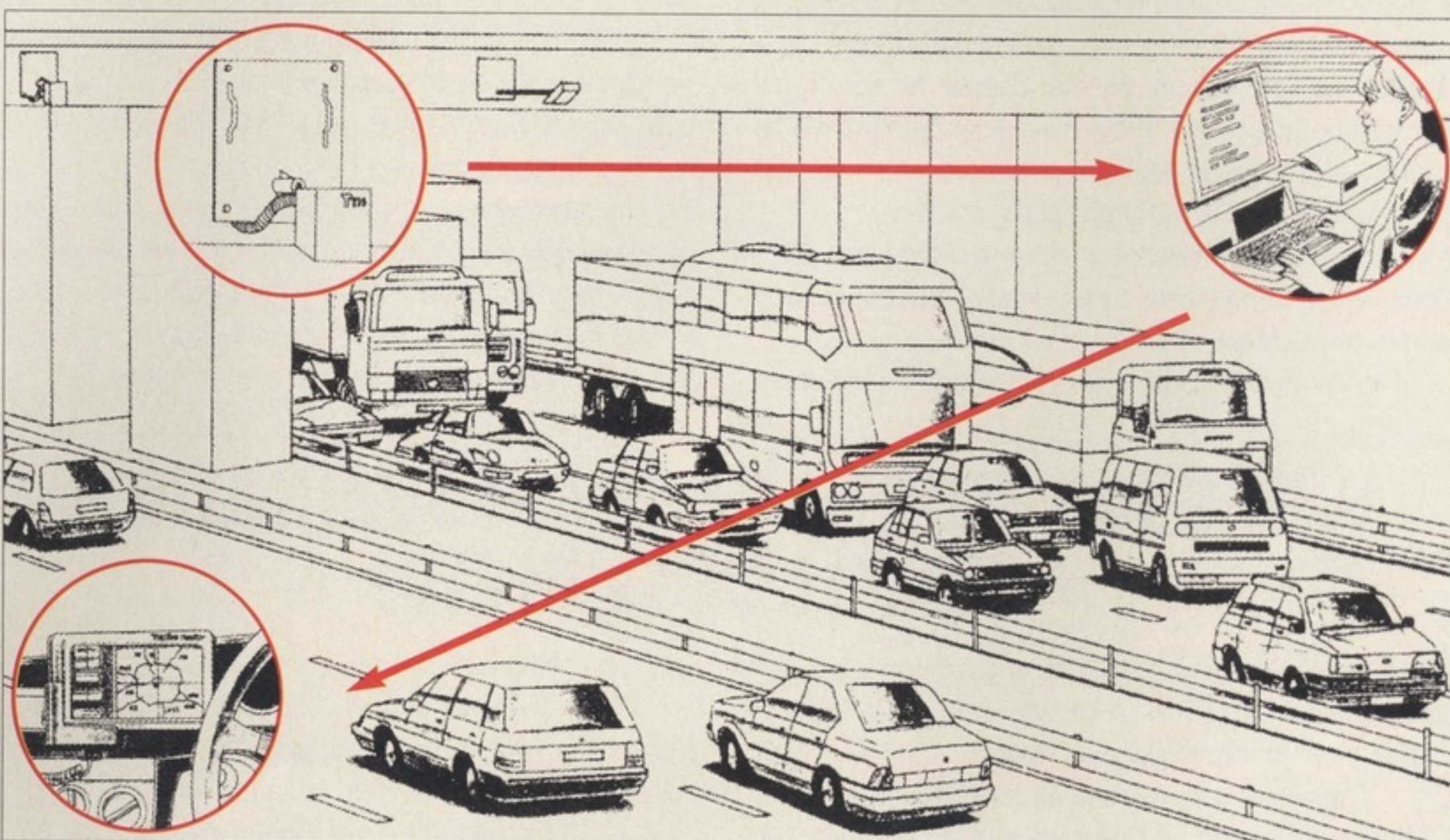
MESSAGE SERVICE

80 character	£17.50 per month
160 character	£23.50 per month
Extra Region	£ 1.00 per region

MAINTENANCE

12 months	Free
2nd year	£50
3rd year	£75

This feature allows a company to get a message to a vehicle so equipped without the costly rental and airtime associated with in-car cellphones. ■



• The Trafficmaster network updates the driver minute by minute on the changing circumstances on the road.

BUT HOW DID IT PERFORM?

on the dashboard without causing safety compromises.

I dropped my passengers off at a convenient tube station and settled down to plan the rest of the weekend's test. Saturday brought a see-sawing across London trying to find 'black spots' where the system would fail. It beat me hollow. Mid afternoon and it was time to see how far out of the city I could get before it turned up its toes and gave up. I planned a route up the M1 thinking that when it stopped functioning I could probably grab a bite at Toddington, Newport Pagnell, or at absolute furthest, Watford Gap.

My plans were re-arranged as I sailed past the A38M junction for Birmingham City Centre and I eventually

had my snack at Sandbach, well up the M6 in Cheshire. Hasty overnight arrangements were made and I settled down for the night.

With a good northern Sunday lunch inside me, I started the roundabout trip back to London. As I passed Sandbach Services, Trafficmaster pinged back into action. I decided to approach London from another direction and took the M5 turn to head for the South West.

The M5 must be the black hole for radio transmission as the system blinked off a couple of times on the way south.

It must be said that Trafficmaster currently only covers London and surrounding areas and my test was a little harsh to say the least.

I parked up for Sunday night under

the street lamp outside the *Express* office in Bath and prepared to return the car in the middle of the Monday morning rush hour. On the way along the M4, Trafficmaster accurately warned me of road works and congestion on the approach to the city. After a full weekend with it, I was loathed to give it back and it was only the thought of a BR table service breakfast that made me return the car to that dark narrow street in Soho.

Back in the office we discussed Trafficmaster. One colleague bemoaned the lack of any navigational help, but the system doesn't claim any skills in that direction. Trafficmaster is claimed to be an affordable system that can be tailored geographically to the needs of the user. The page facility and 'human' operators

add icing to an already tasty cake.

Navigational embellishments were added by the use of a Collins large scale road Atlas, a London A-Z and to be totally self-indulgent, a 386 VGA laptop running *AutoRoute Plus* and *Pan-European Navigator*. These little extras meant that had we wished to avoid problems, we would have saved time and cash.

Trafficmaster is a fine product that won't break the bank.

• Soon to arrive are computerised satellite navigation systems to sit under the dash of your battered Escort or juicy Jaguar.

Watch this space for details of devices that can locate you to within a yard anywhere in the world and direct you to any location by the most direct route.

COMPETITION

LASER PRINTER

WIN **£2,000** OF
PANASONIC LASER PRINTER
IN THE **EXPRESS** MONTHLY
GIVEAWAY



We've brought you the weekly *Express* competition. We've even brought you the mega massive birthday comp. Now there's another way to win, yet another chance for you to get something for nothing. From here on in *Express* will be running monthly competitions as well, in which you get the chance to win some pretty porky products.

At the start of each month we will print two questions and a competition token which you should keep somewhere safe.

WAIT! Don't send it in yet. For the next three

weeks we will print another token and question which also needs to be answered. At the end of the month all you have to do is complete a form with all five questions answered. Then send it in with the tokens. One month after this we draw the winner. Simple isn't it? Yes it is.

This month we are offering a Panasonic KX-P44 50i laser printer. This would normally set you back £1,995 (plus VAT). You could win it for nowt. It stands tall and mean looking ready to print out unsmudgeable text, graphics so pure that Titian would willingly have given his right hand for it and it is quieter than a church mouse with a hangover. Laser printing documents is really the only way to present your work in this day and age, so why be left out?

WIN!



WIN! WIN!

The printer is capable of 11 pages a minute, comes with 28 print styles, has a one year on-site warranty, and if you need to, you can add 4.5Mb of additional memory. Being a Panasonic there is plenty of back-up and you won't have to seek high and low for those essential add-ons such as toner and ink. SO, do you think that you could be the one to carry off the prize? Of course you do. Now get on with it!

QUESTIONS

1) Which of the following is NOT a font?

- A) Helvetica
- B) Courier Bold
- C) Times Grecian

2) What was the name given to old newspaper printing?

- A) Flat leaded
- B) Hot metal
- C) Roller copy

WIN £500 WORTH OF TRAIN SIMULATION — YOU'LL BE CHUFFED!

Yes, you could win the chance to drive your own loco from Kings Cross to who knows where and you don't even need to leave your own home.

Express is offering enough software to make that famous old hacker Dr Beeching turn in his grave. The tracks of Great Britain are open to you, everywhere from Paddington to Burlington North. Even Bath Green Park, which I happen to know has now been turned into Sainsbury's, is included.

The software enables PC and ST users to pretend that they are the fat controller. There is no actual train driving to be done here, no it's far more complex than that. You are in command of a major league

British terminus for a day.

There are three sets of 11 simulators to be won and all you have to do is answer the following four train related questions. Then fill in the form and send it off to: Cripes! It's the Train Comp, *New Computer Express*, 30 Monmouth Street, Bath, Avon BA1 2BW. Entries to be in by Monday October 30.

QUESTIONS

1) What was the original gauge of the Great Western Railway?

- A) 2 miles
- B) 7ft
- C) 2 inches

2) Where was the prototype 'Deltic' manufactured?

- A) Leningrad
- B) Ilford
- C) Preston

3) What is the wheel arrangement of Thomas the Tank Engine?

- A) 0-6-0
- B) 4-4-2
- C) James Last

4) Which locomotive holds the World Steam speed record?

- A) Thomas the Tank Engine

NAME.....

ADDRESS.....

I own a PC ☐ ST ☐

The answers are:

1) 2) 3) 4)

And complete the following sentence in no more than four words — I would like to be an *Express* competition winner because

WINNERS

An arcade machine in your home, that was the prize we offered in issue 97. And the winner is.... Graeme Kaddesley of Osset, West Yorks. Well done Graeme, the machine is on its way to you.

But, but, but there were also 50, that's five-oh runner's up prizes to be won in the form of Virgin Games' *Edition One* games compilation. The lucky people are as follows:

William A Mead, Aberdeen, Scotland; Mr M Brunt, Cowes, Isle of Wight; Tom and Ann Zunder, Rotherham; N S Ravat, Leicester; S Coles, Hastings, East Sussex; Anthony Richardson, Cambridge; N Martin, Braintree, Essex; Robert Billington, Sale, Trafford; Sue Rorke, Sidcup, Kent; Hugh Hanratty, Solihull; Leander R Jordan, Cwmbran, Gwent; Noel Summer, Lymm, Cheshire; Colin Howard, Jarrow, Tyne and Wear; Alan Timmington, Rickmansworth, Herts; Richard Goodwin, Bedford, Beds; Bryan Kennerley, Rhyl, Clwyd; Mr D Caspersz, Aylesbury, Bucks; Simon Lacey, Aylesbury, Bucks; Mark Bond, Colchester, Essex; Bill Cassidey, Stockport, Cheshire; Rueben Willinson, Little Hadham, Herts; Jim Blackler, Lancaster; Michael Brady, Leeds, West Yorkshire; Adam Dawes, Brighton; Pete Walsby, Colchester, Essex; Kushel Vadgama, East Barnet, Herts; Mr S Macey, Enfield, Middx.; Stever D. Sharples, Harden, Near Bingley, West Yorkshire; Philip Chong, Cheltenham, Glo; Lee Coles, Didcot, Oxon; Shazan Kazi, Handsworth, Birmingham; A Kalam, Central Hill, London; Dylan Payne, Millbrook, Nr Torpoint, Cornwall; John Oakes, Shotton, Clwyd; Dan Gibson, Jesmond, Newcastle upon Tyne; Andy MacDonald, Wakefield; Shaun M Wilkinson, Exeter, Devon; Stephen Martin, Palmers Green, London; David Rhodes, Pudsey, West Yorks; A H Foster, Bassett, Southampton; Martin Faikclogh, Kenton, Middx.; D Miller, Bassingbourn, Herts; Guy Edmondson, Faversham, Kent; D A Beck, Barwell, Leics; Rafael Jay, Bath, Avon; Mr Philip Saunders, Croydon, Surrey; James N. Bradbury, Springhead, Oldham; Benjamin Reilly, Warrington, Cheshire; Mark Owens, Tolleshunt Major, Essex; James Williams, Norwich, Norfolk

SHADOW OF THE BEAST

Due to major redesigns and other organisational difficulties, the *Shadow of the Beast II* competition has not yet been drawn. Now it can be done.

The winners are:

T Meredith, BFPO
Martin Connell, Crosby, Liverpool
M A Reed, Kenley, Surrey
Colin Watkins, London
B Hobson, Huddersfield, W Yorks
Jonathan Dicks, South Petherton, Somerset
Philip Brown, Gedling, Notts
Rick Billson, Staines, Middx
R S Evans, Runcorn, Cheshire
Ian White, Wollaton, Notts
Dave Brown, North Shields, Tyne and Wear

RETURN THE COUPON FOR FREE COLOUR BROCHURES!

NEW! - AMIGA PACK

Commodore A500
Flight Of Fantasy

£399



A500 BATMAN PACK



The Commodore A500 Batman Pack must surely rank as one of the most popular computer packs ever! The pack features the Commodore Amiga 500 computer with mouse controller and TV modulator, plus four top software titles. The software includes: 'Batman The Movie' - Rid Gotham City of the cunning joker, in Ocean's top selling title based on the blockbuster Batman film; New Zealand Story - high quality conversion of the leading arcade game; Interceptor - Dogfight with two F-16's in this leading flight simulator; Deluxe Paint II - top quality Amiga graphics package which set the standard for others to follow. Return the coupon for further details.

PACK INCLUDES:

A500 Computer & Mouse £399.99
A520 TV Modulator £24.99
Batman The Movie £24.95
New Zealand Story £24.95
Interceptor £24.95
Deluxe Paint II £49.95

TOTAL RRP: £549.78

Less Pack Saving: £150.78

PACK PRICE: £399.00

£399 INC VAT

AMIGA 2000



For the more serious or professional applications user, Commodore have a selection of systems based around the expandable Amiga 2000, at prices from £1295+VAT. The A2000 features a full 1Mb RAM (expandable to 9Mb), 9 system expansion slots, plus IBM compatibility with the use of PC-XT or PC-AT bridgeboards. Complete and return the coupon, putting a tick in the A2000 box, for details of A2000 computer systems.

£1295 +VAT= £1489.25

FLIGHT OF FANTASY

Flight of Fantasy is the very latest Amiga 500 pack from Commodore, featuring BRAND NEW software releases, to make this the most spectacular A500 pack ever! The pack features the Amiga 500 computer with mouse controller and TV modulator, as well as four top software titles. These include the following:

DELUXE PAINT II:

The high quality graphics program that set the standard for other Amiga art packages. Deluxe Paint II includes powerful, easy to use tools that bring out the artist in you. Create masterpieces, presentations, 3D perspectives or just doodle.

ESCAPE / ROBOT MONSTERS:

Here's something completely different - a science fiction story with comic book style graphics. Our heroes Jake and Duke are on the Planet X rescuing Humans who have been captured by the Robot Monsters and forced to create an evil Robot Army to DESTROY EARTH! Jake and Duke fight their way through hordes of evil Robots to help the Humans escape.

RAINBOW ISLANDS:

Slip on your magic shoes, practise throwing a rainbow and you're ready to go island hopping. From the Island of Doh to Monster Island, you will encounter Doh himself, stinging insects, lethal combat machines, mechanical assailants, the formidable beings of legend and folklore. Finally enter the world of darkness and its inhabitants.

F29 RETALIATOR:

The ultimate in flight simulation with a choice of two aircraft and four battle environments with dozens of different tactical missions. Aerial combat, strategic bombings, interactive ground based battles, seagoing carriers ... the list of features is endless. Real time cockpit displays, including 'true radar' enhance the realistic feel of this stunning simulation.

PACK INCLUDES:

A500 Computer & Mouse £399.99
A520 TV Modulator £24.99
Deluxe Paint II £49.95
Escape/Robot Monsters £19.99
Rainbow Islands £24.95
F29 Retaliator £24.95

TOTAL RRP: £544.82

Less Pack Saving: £145.82

PACK PRICE: £399.00

£399 INC VAT

FOR FURTHER DETAILS OF THE AMIGA RANGE, COMPLETE THE COUPON AND RETURN IT TO SILICA SHOP
THE UK's No1 AMIGA SPECIALISTS

SILICA SHOP OFFER YOU

FREE OVERNIGHT COURIER DELIVERY: On all hardware orders shipped in the UK.
TECHNICAL SUPPORT HELPLINE: Team of Amiga technical experts at your service.
PRICE MATCH: We normally match competitors on a "Same product - Same price" basis.
ESTABLISHED 12 YEARS: Proven track record in professional computer sales.
£13M TURNOVER (with 60 staff): Solid and reliable with maintained growth.
BUSINESS/EDUCATION/GOVERNMENT: Volume discounts available for large orders.
SHOWROOMS: Demonstration and training facilities at our London & Sidcup branches.
THE FULL STOCK RANGE: All of your Amiga requirements from one supplier.
FREE CATALOGUES: Will be mailed to you with offers and software/peripheral details.
PAYMENT: By cash, cheque and all major credit cards.
CREDIT PAYMENT TERMS: Silica are licensed credit brokers - return coupon for details.

Before you decide when to buy your new Amiga computer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Amiga, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new products? At Silica Shop, we ensure that you will have nothing to worry about. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Shop Service".

RETURN THE COUPON NOW FOR
FREE BROCHURES

SILICA
SHOP



MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111
Order Lines Open: Mon-Sat 9.00am-6.00pm No Late Night Opening Fax No: 081-308 0608

LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm Fax No: 071-323 4737

SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017

BUSINESS/EDUCATION: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888
Order Lines Open: Mon-Fri 9.00am-6.00pm Closed on Saturdays Fax No: 081-308 0608

To: Silica Systems Ltd, Dept NCE-1090-32, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON THE AMIGA

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode: Tel:

Which computer(s), if any, do you own? A2000 ☐

E&OE - Advertised prices and specifications may change - please return the coupon for the latest information.

A NEW WORLD OF POWER

THE ANSWER
TO YOUR
DISK
DUPLICATION
PROBLEMS

FOR ONLY

£34.99

THE

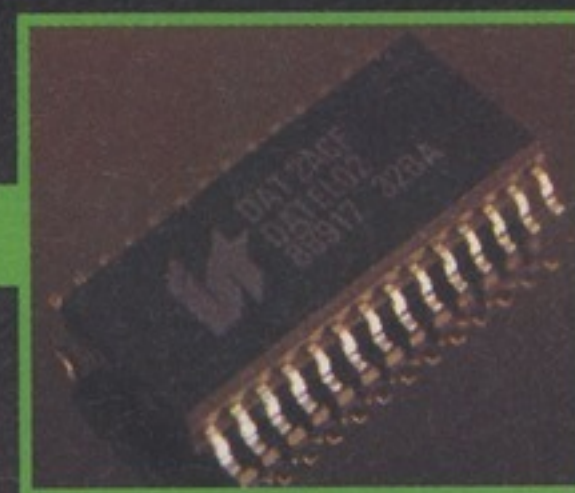
SYNCR0 EXPRESS II

IS HERE!

- SYNCRO EXPRESS IS A HIGH SPEED DISK DUPLICATION SYSTEM THAT WILL PRODUCE COPIES OF YOUR DISK IN AROUND 50 SECONDS!!
- Syncro Express requires a second drive & works by controlling it as a slave device & ignoring the ST or Amiga disk drive controller chip whereby high speeds & great data accuracy are achieved.
- Menu driven selection for Start Track/End Track - up to 80 tracks. 1 side, 2 sides.
- Very simple to use, requires no user knowledge.
- Also duplicates other formats such as IBM, MAC etc.
- Ideal for clubs, user groups or just for your own disks.
- No more waiting around for your disks to copy.
- Probably the only duplication system you will ever need!

THE LATEST CUSTOM LSI CHIP TECHNOLOGY

By using an on-board Custom LSI Chip, Syncro Express has the power to transfer an MFM image of the original disk directly to your blank disk - quickly, simply and without any user knowledge. One external disk drive is required*.



SYNCRO EXPRESS IS AVAILABLE FOR BOTH THE ST AND AMIGA SYSTEMS - PLEASE STATE WHICH REQUIRED WHEN ORDERING

WARNING 1988 COPYRIGHT ACT WARNING

Datel Electronics Ltd., neither condones nor authorises the use of its products for the reproduction of copyright material.

The backup facilities of this product are designed to reproduce only software such as Public Domain material, the users own programs or software where permission to make backups has been clearly given. It is illegal to make copies, even for your own use, of copyright material, without the express permission of the copyright owner, or the licensee thereof.

If you don't have a second drive we can supply SYNCRO EXPRESS together with a drive for

ONLY £104.99 (AMIGA)

ONLY £119.99 (ST)

HOW TO GET YOUR SYNCR0 EXPRESS II

TELEPHONE (24 Hrs) - 0782 744707 - CREDIT CARD ORDERS

WE WILL DESPATCH YOUR ORDER QUICKLY & EFFICIENTLY TO ENABLE YOU TO START RECEIVING THE BENEFITS OF YOUR PURCHASE WITHIN DAYS, NOT WEEKS.

ORDERS NORMALLY DESPATCHED WITHIN 48 Hrs. ALL CHEQUES/POSTAL ORDERS MADE PAYABLE TO...



DATTEL ELECTRONICS LTD.,



GOVAN ROAD, FENTON INDUSTRIAL ESTATE, FENTON, STOKE-ON-TRENT, ST4 2RS, ENGLAND
TECHNICAL/CUSTOMER SERVICE 0782 744324